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THE

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VOL. V.



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LOCKE'S CONDUCT  
OF THE  
UNDERSTANDING.

BOYLE'S REFLECTIONS.

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LOCKE'S  
CONDUCT OF THE UNDERSTAND



Sir G Kneller paxt

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LOCKE  
ON THE  
CONDUCT  
OF THE  
UNDERSTANDING.

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Quid tam temerarium tamque indignum sapientis gravitate  
atque constantia, quam aut falsum sentire, aut quod non  
satis explorate perceptum sit et cognitum, sine ulla dubi-  
tatione defendere?

*Cic. de Nat. Deor.* lib. i.

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§. 1. INTRODUCTION.

THE last resort a man has recourse to, in the conduct of himself, is his understanding; for though we distinguish the faculties of the mind, and give the supreme command to the will, as to an agent; yet the truth is, the man, who is the agent, determines himself to this or that voluntary action, upon some precedent knowledge, or appearance of knowledge, in the understanding. No man ever sets himself about any thing but upon some view or other, which serves him for a reason for what he does; and whatsoever faculties he employs, the understanding, with such light as it has, well or ill informed, constantly leads; and by that light, true

or false, all his operative powers are directed. The will itself, how absolute and uncontrollable soever it may be thought, never fails in its obedience to the dictates of the understanding. Temples have their sacred images, and we see what influence they have always had over a great part of mankind. But, in truth, the ideas and images in men's minds are the invisible powers that constantly govern them; and to these they all universally pay a ready submission. It is, therefore, of the highest concernment, that great care should be taken of the understanding, to conduct it right, in the search of knowledge, and in the judgments it makes.

The logic, now in use, has so long possessed the chair, as the only art taught in the schools, for the direction of the mind, in the study of the arts and sciences, that it would, perhaps, be thought an affectation of novelty to suspect, that rules, that have served the learned world these two or three thousand years, and which, without any complaint of defects, the learned have rested in, are not sufficient to guide the understanding. And I should not doubt, but this attempt would be censured as vanity or presumption, did not the great lord Verulam's authority justify it; who, not servilely thinking learning could not be advanced beyond what it was, because for many ages it had not been, did not rest in the lazy approbation and applause of what was, because it was, but enlarged his mind to what it might be. In his preface to his *Novum Organum*, concerning logic, he pronounces thus: "Qui summas dialecticæ partes tribuerunt, atque inde fidissima scientiis præsidia comparari putârunt, verissime et optime viderunt intellectum humanum,

sibi permissum, merito suspectum esse debere. Verum infirmior omnino est malo medicina; nec ipsa mali expers: siquidem dialectica, quæ recepta est, licet ad civilia et artes, quæ in sermone et opinione positæ sunt, rectissime adhibeatur; naturæ tamen subtilitatem longo intervallo non attingit, et prensando quod non capit, ad errores potius stabiendos et quasi figendos, quam ad viam veritati aperiendam, valuit."

"They," says he, "who attributed so much to logic, perceived very well and truly, that it was not safe to trust the understanding to itself without the guard of any rules. But the remedy reached not the evil, but became a part of it; for the logic, which took place, though it might do well enough in civil affairs and the arts, which consisted in talk and opinion, yet comes very far short of subtlety in the real performances of nature; and, catching at what it cannot reach, has served to confirm and establish errors, rather than to open a way to truth." And, therefore, a little after, he says, "That it is absolutely necessary that a better and perfecter use and employment of the mind and understanding should be introduced." "Necessario requiritur ut melior et perfectior mentis et intellectus humani usus et adoperatio introducatur."

## §. 2. PARTS.

There is, it is visible, great variety in men's understandings, and their natural constitutions put so wide a difference between some men, in this respect, that art and industry would never be able to master; and their very natures seem to want a

foundation to raise on it that which other men easily attain unto. Amongst men of equal education there is great inequality of parts ; and the woods of America, as well as the schools of Athens, produce men of several abilities in the same kind. Though this be so, yet I imagine most men come very short of what they might attain unto, in their several degrees, by a neglect of their understandings. A few rules of logic are thought sufficient, in this case, for those who pretend to the highest improvement ; whereas I think there are a great many natural defects in the understanding capable of amendment, which are overlooked and wholly neglected. And it is easy to perceive, that men are guilty of a great many faults, in the exercise and improvement of this faculty of the mind, which hinder them in their progress, and keep them in ignorance and error all their lives. Some of them I shall take notice of, and endeavour to point out proper remedies for, in the following discourse.

### §. 3. REASONING.

Besides the want of determined ideas, and of sagacity and exercise in finding out, and laying in order, intermediate ideas ; there are three miscarriages that men are guilty of, in reference to their reason, whereby this faculty is hindered in them from that service it might do, and was designed for ; and he that reflects upon the actions and discourses of mankind will find their defects in this kind very frequent and very observable.

1. The first is of those who seldom reason at all, but do and think according to the example of others, whether parents, neighbours, ministers, or

who else they are pleased to make choice of to have an implicit faith in, for the saving of themselves the pains and trouble of thinking and examining for themselves.

2. The second is of those who put passion in the place of reason, and, being resolved that shall govern their actions and arguments, neither use their own, nor hearken to other people's reason, any farther than it suits their humour, interest, or party; and these, one may observe, commonly content themselves with words which have no distinct ideas to them; though in other matters, that they come with an unbiassed indifference to, they want not abilities to talk and hear reason, where they have no secret inclination that hinders them from being intractable to it.

3. The third sort is of those who readily and sincerely follow reason, but, for want of having that which one may call large, sound, round-about sense, have not a full view of all that relates to the question, and may be of moment to decide it. We are all short-sighted, and very often see but one side of a matter; our views are not extended to all that has a connexion with it. From this defect I think no man is free. We see but in part, and we know but in part, and, therefore, it is no wonder we conclude not right from our partial views. This might instruct the proudest esteem of his own parts how useful it is to talk and consult with others, even such as come short of him in capacity, quickness, and penetration; for, since no one sees all, and we generally have different prospects of the same thing, according to our different, as I may say, positions to it; it is not incongruous to think, nor

beneath any man to try, whether another may not have notions of things which have escaped him, and which his reason would make use of if they came into his mind. The faculty of reasoning seldom or never deceives those who trust to it; its consequences, from what it builds on, are evident and certain; but that which it oftenest, if not only, misleads us in, is, that the principles from which we conclude, the grounds upon which we bottom our reasoning, are but a part; something is left out which should go into the reckoning, to make it just and exact. Here we may imagine a vast and almost infinite advantage, that angels and separate spirits may have over us, who, in their several degrees of elevation above us, may be endowed with more comprehensive faculties; and some of them, perhaps, having perfect and exact views of all finite beings that come under their consideration, can, as it were, in the twinkling of an eye, collect together all their scattered and almost boundless relations. A mind so furnished, what reason has it to acquiesce in the certainty of its conclusions!

In this we may see the reason why some men of study and thought, that reason right, and are lovers of truth, do make no great advances in their discoveries of it. Error and truth are certainly blended in their minds, their decisions are lame and defective, and they are very often mistaken in their judgments; the reason whereof is, they converse but with one sort of men, they read but one sort of books, they will not come in the hearing but of one sort of notions; the truth is, they canton out to themselves a little Goshen, in the intellectual

world, where light shines, and, as they conclude, day blesses them ; but the rest of that vast expansum they give up to night and darkness, and so avoid coming near it : they have a pretty traffic with known correspondents in some little creek ; within that they confine themselves, and are dexterous managers enough of the wares and products of that corner, with which they content themselves ; but will not venture out into the great ocean of knowledge, to survey the riches that nature hath stored other parts with, no less genuine, no less solid, no less useful, than what has fallen to their lot, in the admired plenty and sufficiency of their own little spot, which to them contains whatsoever is good in the universe. Those who live thus mewed up within their own contracted territories, and will not look abroad beyond the boundaries that chance, conceit, or laziness, has set to their inquiries ; but live separate from the notions, discourses, and attainments of the rest of mankind, may not amiss be represented by the inhabitants of the Marian islands, who, being separated by a large tract of sea from all communion with the habitable parts of the earth, thought themselves the only people of the world : and though the straitness of the conveniences of life amongst them had never reached so far as to the use of fire, till the Spaniards, not many years since, in their voyages from Acapulco to Manilla, brought it amongst them ; yet, in the want and ignorance of almost all things, they looked upon themselves, even after that the Spaniards had brought amongst them the notice of variety of nations, abounding in sciences, arts, and conveniences of life, of which they knew nothing—

they looked upon themselves, I say, as the happiest and wisest people of the universe. But, for all that, nobody, I think, will imagine them deep naturalists, or solid metaphysicians ; nobody will deem the quickest-sighted amongst them to have very enlarged views in ethics or politics ; nor can any one allow the most capable amongst them to be advanced so far in his understanding as to have any other knowledge but of the few little things of his and the neighbouring islands within his commerce ; but far enough from that comprehensive enlargement of mind, which adorns a soul devoted to truth, assisted with letters, and a free generation of the several views and sentiments of thinking men of all sides. Let not men, therefore, that would have a sight of what every one pretends to be desirous to have a sight of—truth, in its full extent—narrow and blind their own prospect. Let not men think there is no truth but in the sciences that they study, or books that they read. To prejudge other men's notions before we have looked into them, is not to show their darkness, but to put out our own eyes. “ Try all things ; hold fast that which is good,” is a divine rule, coming from the Father of light and truth ; and it is hard to know what other way men can come at truth, to lay hold of it, if they do not dig and search for it as for gold and hid treasure ; but he that does so, must have much earth and rubbish before he gets the pure metal ; sand, and pebbles, and dross, usually lie blended with it ; but the gold is nevertheless gold, and will enrich the man that employs his pains to seek and separate it. Neither is there any danger he should be deceived by the mixture. Every man carries

about him a touchstone, if he will make use of it, to distinguish substantial gold from superficial glitterings, truth from appearances: and, indeed, the use and benefit of this touchstone, which is natural reason, is spoiled and lost only by assuming prejudices, overweening presumption, and narrowing our minds: the want of exercising it, in the full extent of things intelligible, is that which weakens and extinguishes this noble faculty in us: trace it, and see whether it be not so. The day-labourer in a country village has commonly but a small pittance of knowledge, because his ideas and notions have been confined to the narrow bounds of a poor conversation and employment; the low mechanic of a country town does somewhat out-do him; porters and cobblers of great cities surpass them. A country gentleman, leaving Latin and learning in the university, removes thence to his mansion-house, and associates with neighbours of the same strain, who relish nothing but hunting and a bottle; with those alone he spends his time, with those alone he converses, and can away with no company whose discourse goes beyond what claret and dissoluteness inspire. Such a patriot, formed in this happy way of improvement, cannot fail, as we see, to give notable decisions upon the bench, at quarter-sessions, and eminent proofs of his skill in politics, when the strength of his purse and party have advanced him to a more conspicuous station. To such an one, truly, an ordinary coffee-house gleaner of the city is an errant statesman, and as much superior to, as a man conversant about White-hall and the court is to an ordinary shop-keeper. To carry this a little farther: here is one muffled

up in the zeal and infallibility of his own sect, and will not touch a book, or enter into debate with a person that will question any of those things, which to him are sacred. Another surveys our differences in religion with an equitable and fair indifference, and so finds, probably, that none of them are in every thing unexceptionable. These divisions and systems were made by men, and carry the mark of fallible on them ; and in those, whom he differs from, and, till he opened his eyes, had a general prejudice against, he meets with more to be said for a great many things than before he was aware of, or could have imagined. Which of these two, now, is most likely to judge right in our religious controversies, and to be most stored with truth, the mark all pretend to aim at ? All these men that I have instanced in, thus unequally furnished with truth, and advanced in knowledge, I suppose of equal natural parts ; all the odds between them has been the different scope that has been given to their understandings to range in, for the gathering up of information, and furnishing their heads with ideas, and notions, and observations, whereon to employ their mind and form their understandings.

It will, possibly, be objected, “ who is sufficient for all this ? ” I answer, more than can be imagined. Every one knows what his proper business is, and what, according to the character he makes of himself, the world may justly expect of him ; and to answer that, he will find he will have time and opportunity enough to furnish himself, if he will not deprive himself, by a narrowness of spirit, of those helps that are at hand. I do not say, to

be a good geographer, that a man shold visit every mountain, river, promontory, and creek, upon the face of the earth, view the buildings, and survey the land every where, as if he were going to make a purchase; but yet every one must allow that he shall know a country better that makes often sallies into it, and traverses up and down, than he that, like a mill-horse, goes still round in the same track, or keeps within the narrow bounds of a field or two that delight him. He that will inquire out the best books, in every science, and inform himself of the most material authors of the several sects of philosophy and religion, will not find it an infinite work to acquaint himself with the sentiments of mankind concerning the most weighty and comprehensive subjects: let him exercise the freedom of his reason and understanding in such a latitude as this, and his mind will be strengthened, his capacity enlarged, his faculties improved; and the light, which the remote and scattered parts of truth will give to one another, will so assist his judgment, that he will seldom be widely out, or miss giving proof of a clear head and a comprehensive knowledge. At least, this is the only way I know to give the understanding its due improvement to the full extent of its capacity, and to distinguish the two most different things I know in the world, a logical chicaner from a man of reason. Only he, that would thus give the mind its flight, and send abroad his inquiries into all parts after truth, must be sure to settle in his head determined ideas of all that he employs his thoughts about, and never fail to judge himself, and judge

unbiassedly, of all that he receives from others, either in their writings or discourses. Reverence or prejudice must not be suffered to give beauty or deformity to any of their opinions.

#### §. 4. OF PRACTICE AND HABITS.

We are born with faculties and powers capable almost of any thing, such, at least, as would carry us farther than can easily be imagined: but it is only the exercise of those powers which gives us ability and skill in any thing, and leads us towards perfection.

A middle-aged ploughman will scarce ever be brought to the carriage and language of a gentleman, though his body be as well proportioned, and his joints as supple, and his natural parts not any way inferior. The legs of a dancing-master, and the fingers of a musician fall, as it were, naturally, without thought or pains, into regular and admirable motions: bid them change their parts, and they will in vain endeavour to produce like motions in the members not used to them, and it will require length of time and long practice to attain but some degrees of a like ability. What incredible and astonishing actions do we find rope-dancers and tumblers bring their bodies to! Not but that sundry, in almost all manual arts, are as wonderful; but I name those which the world takes notice of for such, because, on that very account, they give money to see them. All these admired motions, beyond the reach and almost conception of unpractised spectators, are nothing but the mere effects of use and industry in men, whose

bodies have nothing peculiar in them from those of the amazed lookers-on.

As it is in the body, so it is in the mind ; practice makes it what it is, and most even of those excellences, which are looked on as natural endowments, will be found, when examined into more narrowly, to be the product of exercise, and to be raised to that pitch only by repeated actions. Some men are remarked for pleasantness in raillery ; others for aplogues and apposite diverting stories. This is apt to be taken for the effect of pure nature, and that rather because it is not got by rules, and those who excel in either of them, never purposely set themselves to the study of it, as an art to be learned. But yet it is true, that at first some lucky hit, which took with somebody, and gained him commendation, encouraged him to try again, inclined his thoughts and endeavours that way, till at last he insensibly got a facility in it, without perceiving how ; and that is attributed wholly to nature, which was much more the effect of use and practice. I do not deny, that natural disposition may often give the first rise to it, but that never carries a man far without use and exercise ; and it is practice alone that brings the powers of the mind, as well as those of the body, to their perfection. Many a good poetic vein is buried under a trade, and never produces any thing for want of improvement. We see the ways of discourse and reasoning are very different, even concerning the same matter, at court and in the university ; and he that will go but from Westminster-hall to the Exchange will find a different genius and turn in

their ways of talking; and yet one cannot think that all whose lot fell in the city were born with different parts from those who were bred at the university, or inns of court.

To what purpose all this, but to show that the difference, so observable in men's understandings and parts, does not arise so much from their natural faculties, as acquired habits? He would be laughed at, that should go about to make a fine dancer out of a country hedger, at past fifty; and he will not have much better success, who shall endeavour, at that age, to make a man reason well, or speak handsomely, who has never been used to it, though you should lay before him a collection of all the best precepts of logic or oratory. Nobody is made any thing by hearing of rules, or laying them up in his memory; practice must settle the habit of doing, without reflecting on the rule; and you may as well hope to make a good painter, or musician, extempore, by a lecture and instruction in the arts of music and painting, as a coherent thinker, or a strict reasoner, by a set of rules, showing him wherein right reasoning consists.

This being so, that defects and weakness in men's understandings, as well as other faculties, come from want of a right use of their own minds; I am apt to think, the fault is generally mislaid upon nature, and there is often a complaint of want of parts, when the fault lies in want of a due improvement of them. We see men frequently dexterous and sharp enough in making a bargain, who, if you reason with them about matters of religion, appear perfectly stupid.

### §. 5. IDEAS.

I will not here, in what relates to the right conduct and improvement of the understanding, repeat again the getting clear and determined ideas, and the employing our thoughts rather about them, than about sounds put for them; nor of settling the signification of words, which we use with ourselves, in the search of truth, or with others, in discoursing about it. Those hinderances of our understandings in the pursuit of knowledge, I have sufficiently enlarged upon, in another place; so that nothing more needs here to be said of those matters.

### §. 6. PRINCIPLES.

There is another fault, that stops or misleads men in their knowledge, which I have also spoken something of, but yet is necessary to mention here again, that we may examine it to the bottom, and see the root it springs from; and that is a custom of taking up with principles that are not self-evident, and very often, not so much as true. It is not unusual to see men rest their opinions upon foundations that have no more certainty and solidity than the propositions built on them, and embraced for their sake. Such foundations are these and the like, viz.—the founders, or leaders, of my party are good men, and, therefore, their tenets are true;—it is the opinion of a sect that is erroneous, therefore it is false;—it hath been long received in the world, therefore it is true; or—it is new, and therefore false.

These, and many the like, which are by no means

the measures of truth and falsehood, the generality of men make the standards by which they accustom their understanding to judge ; and thus, they falling into a habit of determining of truth and falsehood by such wrong measures, it is no wonder they should embrace error for certainty, and be very positive in things they have no ground for.

There is not any, who pretends to the least reason, but, when any of these his false maxims are brought to the test, must acknowledge them to be fallible, and such as he will not allow in those that differ from him ; and yet after he is convinced of this, you shall see him go on in the use of them ; and the very next occasion that offers, argue again upon the same grounds. Would one not be ready to think that men are willing to impose upon themselves, and mislead their own understandings, who conduct them by such wrong measures, even after they see they cannot be relied on ? But yet they will not appear so blameable as may be thought at first sight : for I think there are a great many, that argue thus in earnest, and do it not to impose on themselves or others. They are persuaded of what they say, and think there is weight in it, though in a like case they have been convinced there is none ; but men would be intolerable to themselves and contemptible to others, if they should embrace opinions without any ground, and hold what they could give no manner of reason for. True or false, solid or sandy, the mind must have some foundation to rest itself upon ; and, as I have remarked in another place, it no sooner entertains any proposition, but it presently hastens to some hypothesis to bottom it on ; till then it is unquiet

and unsettled. So much do our own very tempers dispose us to a right use of our understandings, if we would follow, as we should, the inclinations of our nature.

In some matters of concernment, especially those of religion, men are not permitted to be always wavering and uncertain; they must embrace and profess some tenets or other; and it would be a shame, nay, a contradiction, too heavy for any one's mind to lie constantly under, for him to pretend seriously to be persuaded of the truth of any religion, and yet not to be able to give any reason of his belief, or to say any thing for his preference of this to any other opinion: and therefore they must make use of some principles or other, and those can be no other than such as they have and can manage; and to say they are not in earnest persuaded by them, and do not rest upon those they make use of, is contrary to experience, and to allege that they are not misled, when we complain they are.

If this be so, it will be urged, why then do they not make use of sure and unquestionable principles, rather than rest on such grounds as may deceive them, and will, as is visible, serve to support error, as well as truth?

To this I answer, the reason why they do not make use of better and surer principles, is because they cannot: but this inability proceeds not from want of natural parts (for those few, whose case that is, are to be excused) but for want of use and exercise. Few men are, from their youth, accustomed to strict reasoning, and to trace the dependence of any truth, in a long train of consequences, to its remote principles, and to observe its connexion;

and he that by frequent practice has not been used to this employment of his understanding, it is no more wonder, that he should not, when he is grown into years, be able to bring his mind to it, than that he should not be, on a sudden, able to grave, or design, dance on the ropes, or write a good hand, who has never practised either of them.

Nay, the most of men are so wholly strangers to this, that they do not so much as perceive their want of it; they despatch the ordinary business of their callings by rote, as we say, as they have learnt it; and if at any time they miss success, they impute it to any thing, rather than want of thought or skill; that they conclude (because they know no better) they have in perfection: or, if there be any subject that interest or fancy has recommended to their thoughts, their reasoning about it is still after their own fashion; be it better or worse, it serves their turns, and is the best they are acquainted with; and, therefore, when they are led by it into mistakes, and their business succeeds accordingly, they impute it to any cross accident, or default of others, rather than to their own want of understanding: that is what nobody discovers, or complains of, in himself. Whatsoever made his business to miscarry, it was not want of right thought and judgment in himself: he sees no such defect in himself, but is satisfied that he carries on his designs well enough by his own reasoning, or at least should have done, had it not been for unlucky traverses not in his power. Thus, being content with this short and very imperfect use of his understanding, he never troubles himself to seek out methods of improving his mind, and lives all his life without

any notion of close reasoning, in a continued connexion of a long train of consequences, from sure foundations ; such as is requisite for the making out and clearing most of the speculative truths most men own to believe, and are most concerned in. Not to mention here, what I shall have occasion to insist on, by and by, more fully, viz. that in many cases it is not one series of consequences will serve the turn, but many different and opposite deductions must be examined and laid together, before a man can come to make a right judgment of the point in question. What then can be expected from men, that neither see the want of any such kind of reasoning, as this ; nor, if they do, know how to set about it, or could perform it ? You may as well set a countryman, who scarce knows the figures, and never cast up a sum of three particulars, to state a merchant's long account, and find the true balance of it.

What then should be done in the case ? I answer, we should always remember what I said above, that the faculties of our souls are improved and made useful to us, just after the same manner as our bodies are. Would you have a man write or paint, dance or fence well, or perform any other mannal operation dexterously and with ease ? let him have ever so much vigour and activity, suppleness and address naturally, yet nobody expects this from him, unless he has been used to it, and has employed time and pains in fashioning and forming his hand, or outward parts, to these motions. Just so it is in the mind : would you have a man reason well, you must use him to it betimes, exercise his mind in observing the connexion of ideas, and fol-

lowing them in train. Nothing does this better than mathematics ; which, therefore, I think should be taught all those who have time and opportunity; not so much to make them mathematicians, as to make them reasonable creatures ; for though we all call ourselves so, because we are born to it, if we please ; yet we may truly say, nature gives us but the seeds of it ; we are born to be, if we please, rational creatures, but it is the use and exercise only that makes us so ; and we are, indeed, so no farther than industry and application has carried us. And, therefore, in ways of reasoning, which men have not been used to, he that will observe the conclusions they take up, must be satisfied they are not all rational.

This has been the less taken notice of, because every one, in his private affairs, uses some sort of reasoning or other, enough to denominate him reasonable : but the mistake is, that he that is found reasonable in one thing, is concluded to be so in all ; and to think or to say otherwise, is thought so unjust an affront, and so senseless a censure, that nobody ventures to do it. It looks like the degradation of a man below the dignity of his nature. It is true, that he that reasons well in any one thing, has a mind naturally capable of reasoning well in others, and to the same degree of strength and clearness, and possibly much greater, had his understanding been so employed : but it is as true that he who can reason well to-day, about one sort of matters, cannot at all reason to-day about others, though perhaps a year hence he may. But wherever a man's rational faculty fails him, and will not serve him to reason, there we cannot say he

is rational, how capable soever he may be, by time and exercise, to become so.

Try in men of low and mean education, who have never elevated their thoughts above the spade and the plough, nor looked beyond the ordinary drudgery of a day-labourer. Take the thoughts of such an one, used for many years to one track, out of that narrow compass he has been, all his life, confined to, you will find him no more capable of reasoning than almost a perfect natural. Some one or two rules, on which their conclusions immediately depend, you will find in most men have governed all their thoughts ; these, true or false, have been the maxims they have been guided by ; take these from them, and they are perfectly at a loss, their compass and pole-star then are gone, and their understanding is perfectly at a nonplus ; and therefore they either immediately return to their old maxims again, as the foundations of all truth to them, notwithstanding all that can be said to show their weakness ; or if they give them up to their reasons, they, with them, give up all truth and farther inquiry, and think there is no such thing as certainty. For if you would enlarge their thoughts, and settle them upon more remote and surer principles, they either cannot easily apprehend them, or, if they can, know not what use to make of them ; for long deductions from remote principles are what they have not been used to, and cannot manage.

What then, can grown men never be improved, or enlarged in their understandings ? I say not so ; but this I think I may say, that it will not be done without industry and application, which will require more time and pains than grown men, settled in

their course of life, will allow to it, and therefore very seldom is done : and this very capacity of attaining it, by use and exercise only, brings us back to that which I laid down before, that it is only practice that improves our minds as well as bodies, and we must expect nothing from our understandings, any farther than they are perfected by habits.

The Americans are not all born with worse understandings than the Europeans, though we see none of them have such reaches in the arts and sciences : and, among the children of a poor countryman, the lucky chance of education, and getting into the world, gives one infinitely the superiority in parts over the rest, who, continuing at home, had continued also just of the same size with his brethren.

He that has to do with young scholars, especially in mathematics, may perceive how their minds open by degrees, and how it is exercise alone that opens them. Sometimes they will stick a long time at a part of a demonstration, not for want of will and application, but really for want of perceiving the connexion of two ideas, that, to one whose understanding is more exercised, is as visible as any thing can be. The same would be with a grown man beginning to study mathematics : the understanding, for want of use, often sticks in every plain way, and he himself that is so puzzled, when he comes to see the connexion, wonders what it was he stuck at, in a case so plain.

### §. 7. MATHEMATICS.

I have mentioned mathematics as a way to settle in the mind a habit of reasoning closely and in

train ; not that I think it necessary that all men should be deep mathematicians ; but that, having got the way of reasoning, which that study necessarily brings the mind to, they might be able to transfer it to other parts of knowledge, as they shall have occasion. For, in all sorts of reasoning, every single argument should be managed as a mathematical demonstration : the connexion and dependence of ideas should be followed, till the mind is brought to the source on which it bottoms, and observes the coherence all along, though in proofs of probability one such train is not enough to settle the judgment, as in demonstrative knowledge.

Where a truth is made out by one demonstration, there needs no farther inquiry : but in probabilities, where there wants demonstration to establish the truth beyond doubt, there it is not enough to trace one argument to its source, and observe its strength and weakness, but all the arguments, after having been so examined on both sides, must be laid in balance one against another, and, upon the whole, the understanding determine its assent.

This is a way of reasoning the understanding should be accustomed to, which is so different from what the illiterate are used to, that even learned men sometimes seem to have very little or no notion of it. Nor is it to be wondered ; since the way of disputing in the schools leads them quite away from it, by insisting on one topical argument, by the success of which the truth or falsehood of the question is to be determined, and victory adjudged to the opponent, or defendant ; which is all one as if one should balance an account by one sum,

charged and discharged, where there are a hundred others to be taken into consideration.

This, therefore, it would be well if men's minds were accustomed to, and that early; that they might not erect their opinions upon one single view, when so many other are requisite to make up the account, and must come into the reckoning, before a man can form a right judgment. This would enlarge their minds, and give a due freedom to their understandings, that they might not be led into error by presumption, laziness, or precipitancy; for I think nobody can approve such a conduct of the understanding, as should mislead it from truth, though it be ever so much in fashion to make use of it.

To this perhaps it will be objected, that to manage the understanding as I propose, would require every man to be a scholar, and to be furnished with all the materials of knowledge, and exercised in all the ways of reasoning. To which I answer, that it is a shame for those that have time, and the means to attain knowledge, to want any helps, or assistance, for the improvement of their understandings, that are to be got; and to such I would be thought here chiefly to speak. Those, methinks, who, by the industry and parts of their ancestors, have been set free from a constant drudgery to their backs and their bellies, should bestow some of their spare time on their heads, and open their minds, by some trials and essays, in all the sorts and matters of reasoning. I have before mentioned mathematics, wherein algebra gives new helps and views to the understanding. If I propose these, it is not, as I said,

to make every man a thorough mathematician, or a deep algebraist ; but yet I think the study of them is of infinite use, even to grown men ; first, by experimentally convincing them, that to make any one reason well, it is not enough to have parts where-with he is satisfied, and that serve him well enough in his ordinary course. A man in those studies will see, that however good he may think his understanding, yet in many things, and those very visible, it may fail him. This would take off that presumption that most men have of themselves in this part ; and they would not be so apt to think their minds wanted no helps to enlarge them, that there could be nothing added to the acuteness and penetration of their understandings.

Secondly, the study of mathematics would show them the necessity there is in reasoning, to separate all the distinct ideas, and see the habitudes that all those concerned in the present inquiry have to one another, and to lay by those which relate not to the proposition in hand, and wholly to leave them out of the reckoning. This is that which, in other subjects, besides quantity, is what is absolutely requisite to just reasoning, though in them it is not so easily observed, nor so carefully practised. In those parts of knowledge where it is thought demonstration has nothing to do, men reason as it were in the lump ; and if, upon a summary and confused view, or upon a partial consideration, they can raise the appearance of a probability, they usually rest content ; especially if it be in a dispute where every little straw is laid hold on, and every thing that can but be drawn in any way to give colour to the argument, is advanced with ostentation. But that mind

is not in a posture to find the truth, that does not distinctly take all the parts asunder, and, omitting what is not at all to the point, draw a conclusion from the result of all the particulars which any way influence it. There is another no less useful habit to be got by an application to mathematical demonstrations, and that is, of using the mind to a long train of consequences: but having mentioned that already, I shall not again here repeat it.

As to men whose fortunes and time are narrower, what may suffice them is not of that vast extent as may be imagined, and so comes not within the objection.

Nobody is under an obligation to know every thing. Knowledge and science in general, is the business only of those who are at ease and leisure. Those who have particular callings ought to understand them; and it is no unreasonable proposal, nor impossible to be compassed, that they should think and reason right about what is their daily employment. This one cannot think them incapable of, without levelling them with the brutes, and charging them with a stupidity below the rank of rational creatures.

#### §. 8. RELIGION.

Besides his particular calling for the support of this life, every one has a concern in a future life, which he is bound to look after. This engages his thoughts in religion; and here it mightily lies upon him to understand and reason right. Men, therefore, cannot be excused from understanding the words, and framing the general notions relating to religion, right. The one day of seven, besides

other days of rest, allows in the Christian world time enough for this (had they no other idle hours) if they would but make use of these vacancies from their daily labour, and apply themselves to an improvement of knowledge with as much diligence as they often do to a great many other things that are useless, and had but those that would enter them, according to their several capacities, in a right way to this knowledge. The original make of their minds is like that of other men, and they would be found not to want understanding fit to receive the knowledge of religion, if they were a little encouraged and helped in it, as they should be. For there are instances of very mean people, who have raised their minds to a great sense and understanding of religion ; and though these have not been so frequent as could be wished, yet they are enough to clear that condition of life from a necessity of gross ignorance, and to show that more might be brought to be rational creatures, and Christians (for they can hardly be thought really to be so, who, wearing the name, know not so much as the very principles of that religion) if due care were taken of them. For, if I mistake not, the peasantry lately in France (a rank of people under a much heavier pressure of want and poverty, than the day-labourers in England) of the reformed religion, understood it much better, and could say more for it, than those of a higher condition among us.

But if it shall be concluded that the meaner sort of people must give themselves up to brutish stupidity in the things of their nearest concernment, which I see no reason for, this excuses not those of a freer fortune and education, if they neglect their under-

standings, and take no care to employ them as they ought, and set them right in the knowledge of those things for which principally they were given them. At least, those, whose plentiful fortunes allow them the opportunities and helps of improvements, are not so few, but that it might be hoped great advancements might be made in knowledge of all kinds, especially in that of the greatest concern and largest views, if men would make a right use of their faculties, and study their own understandings.

### §. 9. IDEAS.

Outward corporeal objects, that constantly importune our senses and captivate our appetites, fail not to fill our heads with lively and lasting ideas of that kind. Here the mind needs not to be set upon getting greater store ; they offer themselves fast enough, and are usually entertained in such plenty, and lodged so carefully, that the mind wants room, or attention, for others that it has more use and need of. To fit the understanding, therefore, for such reasoning as I have been above speaking of, care should be taken to fill it with moral and more abstract ideas ; for these not offering themselves to the senses, but being to be framed to the understanding, people are generally so neglectful of a faculty they are apt to think wants nothing, that I fear most men's minds are more unfurnished with such ideas than is imagined : they often use the words, and how can they be suspected to want the ideas ? What I have said in the third book of my Essay, will excuse me from any other answer to this question. But to convince people of what moment it is to their understandings to be furnished with

such abstract ideas, steady and settled in them, give me leave to ask, how any one shall be able to know whether he be obliged to be just, if he has not established ideas in his mind of obligation and of justice; since knowledge consists in nothing but the perceived agreement or disagreement of those ideas? and so of all others the like, which concern our lives and manners. And if men do find a difficulty to see the agreement or disagreement of two angles, which lie before their eyes, unalterable in a diagram; how utterly impossible will it be to perceive it in ideas that have no other sensible object to represent them to the mind but sounds; with which they have no manner of conformity, and therefore had need to be clearly settled in the mind themselves, if we would make any clear judgment about them? This, therefore, is one of the first things the mind should be employed about, in the right conduct of the understanding, without which it is impossible it should be capable of reasoning right about those matters. But in these, and all other ideas, care must be taken that they harbour no inconsistencies, and that they have a real existence where real existence is supposed, and are not mere chimeras with a supposed existence.

#### §. 10. PREJUDICE.

Every one is forward to complain of the prejudices that mislead other men or parties, as if he were free, and had none of his own. This being objected on all sides, it is agreed, that it is a fault and a hinderance to knowledge. What now is the cure? No other but this, that every man should let alone other prejudices, and examine his own. Nobody

is convinced of his by the accusation of another; he recribrates by the same rule, and is clear. The only way to remove this great cause of ignorance and error out of the world, is, for every one impartially to examine himself. If others will not deal fairly with their own minds, does that make my errors truths? or ought it to make me in love with them, and willing to impose on myself? If others love cataracts in their eyes, should that hinder me from couching of mine as soon as I can? Every one declares against blindness, and yet who almost is not fond of that which dims his sight, and keeps the clear light out of his mind, which should lead him into truth and knowledge? False or doubtful positions, relied upon as unquestionable maxims, keep those in the dark from truth who build on them: such are usually the prejudices imbibed from education, party, reverence, fashion, interest, &c. This is the mote which every one sees in his brother's eye, but never regards the beam in his own. For who is there almost that is ever brought fairly to examine his own principles, and see whether they are such as will bear the trial? But yet this should be one of the first things every one should set about, and be scrupulous in, who would rightly conduct his understanding in the search of truth and knowledge.

To those who are willing to get rid of this great hinderance of knowledge, (for to such only I write), to those who would shake off this great and dangerous impostor, prejudice, who dresses up falsehood in the likeness of truth, and so dexterously hoodwinks men's minds, as to keep them in the dark, with a belief that they are more in the

light than any that see with their eyes; I shall offer this one mark whereby prejudice may be known. He that is strongly of any opinion, must suppose (unless he be self-condemned) that his persuasion is built upon good grounds; and that his assent is no greater than what the evidence of the truth he holds forces him to; and that they are arguments, and not inclination or fancy, that make him so confident and positive in his tenets. Now, if after all his profession, he cannot bear any opposition to his opinion, if he cannot so much as give a patient hearing, much less examine and weigh the arguments on the other side, does he not plainly confess it is prejudice governs him? and it is not the evidence of truth, but some lazy anticipation, some beloved presumption, that he desires to rest undisturbed in. For, if what he holds be, as he gives out, well fenced with evidence, and he sees it to be true, what need he fear to put it to the proof? If his opinion be settled upon a firm foundation, if the arguments that support it, and have obtained his assent, be clear, good, and convincing, why should he be shy to have it tried whether they be proof or not? He whose assent goes beyond this evidence, owes this excess of his adherence only to prejudice, and does in effect own it, when he refuses to hear what is offered against it, declaring thereby, that it is not evidence he seeks, but the quiet enjoyment of the opinion he is fond of, with a forward condemnation of all that may stand in opposition to it, unheard and unexamined; which, what is it but prejudice? “*Qui æquum statuerit, parte inauditâ alterâ, etiamsi æquum statuerit, haud æquus fuerit.*” He that

would acquit himself in this case as a lover of truth, not giving away to any pre-occupation or bias, that may mislead him, must do two things that are not very common nor very easy.

### §. 11. INDIFFERENCE.

First, he must not be in love with any opinion, or wish it to be true, till he knows it to be so, and then he will not need to wish it; for nothing that is false can deserve our good wishes, nor a desire that it should have the place and force of truth; and yet nothing is more frequent than this. Men are fond of certain tenets upon no other evidence but respect and custom, and think they must maintain them, or all is gone; though they have never examined the ground they stand on, nor have ever made them out to themselves, or can make them out to others. We should contend earnestly for the truth, but we should first be sure that it is truth, or else we fight against God, who is the God of truth, and do the work of the devil, who is the father and propagator of lies; and our zeal, though ever so warm, will not excuse us; for this is plainly prejudice.

### §. 12. EXAMINE.

Secondly, he must do that which he will find himself very averse to, as judging the thing unnecessary, or himself incapable of doing it: he must try whether his principles be certainly true or not, and how far he may safely rely upon them. This, whether fewer have the heart or the skill to do, I shall not determine; but this, I am sure, is that which every one ought to do who professes to love

truth, and would not impose upon himself, which is a surer way to be made a fool of, than by being exposed to the sophistry of others. The disposition to put any cheat upon ourselves works constantly, and we are pleased with it, but are impatient of being bantered or misled by others. The inability I hear speak of is not any natural defect that makes men incapable of examining their own principles : to such, rules of conducting their understandings are useless, and that is the case of very few. The great number is of those whom the ill habit of never exerting their thoughts has disabled ; the powers of their minds are starved by disuse, and have lost that reach and strength which nature fitted them to receive from exercise. Those who are in a condition to learn the first rules of plain arithmetic, and could be brought to cast up an ordinary sum, are capable of this, if they had but accustomed their minds to reasoning ; but they that have wholly neglected the exercise of their understandings in this way, will be very far at first from being able to do it, and as unfit for it as one unpractised in figures to cast up a shop-book, and, perhaps, think it as strange to be set about it. And yet it must, nevertheless, be confessed to be a wrong use of our understandings, to build our tenets (in things where we are concerned to hold the truth) upon principles that may lead us into error. We take our principles at hap-hazard, upon trust, and without ever having examined them ; and then believe a whole system, upon a presumption that they are true and solid ; and what is all this but childish, shameful, senseless credulity ?

In these two things, *viz.* an equal indifference

for all truth; I mean the receiving of it, the love of it, as truth, but not loving of it for any other reason, before we know it to be true; and in the examination of our principles, and not receiving any for such, nor building on them, till we are fully convinced, as rational creatures, of their solidity, truth, and certainty—consists that freedom of the understanding, which is necessary to a rational creature, and without which it is not truly an understanding: it is conceit, fancy, extravagance, any thing rather than understanding, if it must be under the constraint of receiving and holding opinions by the authority of any thing but their own, not fancied, but perceived evidence. This was rightly called imposition, and is of all other the worst and most dangerous sort of it: for we impose upon ourselves, which is the strongest imposition of all others; and we impose upon ourselves in that part which ought, with the greatest care, to be kept free from all imposition. The world is apt to cast great blame on those who have an indifference for opinions, especially in religion. I fear this is the foundation of great error and worse consequences. To be indifferent which of two opinions is true, is the right temper of the mind, that preserves it from being imposed on, and disposes it to examine with that indifference, till it has done its best to find the truth, and this is the only direct and safe way to it: but to be indifferent whether we embrace falsehood or truth, is the great road to error. Those who are not indifferent which opinion is true, are guilty of this; they suppose, without examining, that what they hold is true, and then think they ought to be zealous for it. Those, it is

plain, by their warmth and eagerness, are not indifferent for their own opinions, but, methinks, are very indifferent whether they be true or false, since they cannot endure to have any doubts raised, or objections made against them ; and it is visible they never have made any themselves, and so, never having examined them, know not, nor are concerned, as they should be, to know whether they be true or false.

These are the common and most general miscarriages which I think men should avoid, or rectify, in a right conduct of their understandings, and should be particularly taken care of in education ; the business whereof, in respect of knowledge, is not, as I think, to perfect a learner in all or any one of the sciences, but to give his mind that freedom, that disposition, and those habits, that may enable him to attain any part of knowledge he shall apply himself to, or stand in need of, in the future course of his life.

This, and this only, is well principling, and not the instilling a reverence and veneration for certain dogmas, under the specious title of principles, which are often so remote from that truth and evidence which belongs to principles, that they ought to be rejected, as false and erroneous ; and often cause men so educated, when they come abroad into the world, and find they cannot maintain the principles so taken up and rested in, to cast off all principles, and turn perfect sceptics, regardless of knowledge and virtue.

There are several weaknesses and defects in the understanding, either from the natural temper of the mind, or ill habits taken up, which hinder it

in its progress to knowledge : of these there are as many, possibly, to be found, if the mind were thoroughly studied, as there are diseases of the body, each whereof clogs and disables the understanding to some degree, and therefore deserves to be looked after and cured. I shall set down some few, to excite men, especially those who make knowledge their business, to look into themselves, and observe whether they do not indulge some weaknesses, allow some miscarriages in the management of their intellectual faculty, which is prejudicial to them in the search of truth.

### §. 13. OBSERVATIONS.

Particular matters of fact are the undoubted foundations on which our civil and natural knowledge is built : the benefit the understanding makes of them is to draw from them conclusions, which may be as standing rules of knowledge, and consequently of practice. The mind often makes not that benefit it should of the information it receives from the accounts of civil or natural historians, by being too forward or too slow in making observations on the particular facts recorded in them.

There are those who are very assiduous in reading, and yet do not much advance their knowledge by it : they are delighted with the stories that are told, and, perhaps, can tell them again ; for they make all they read nothing but history to themselves ; but not reflecting on it, not making to themselves observations from what they read, they are very little improved by all that crowd of particulars, that either pass through, or lodge themselves in their understandings. They dream on in a con-

stant course of reading and cramming themselves ; but not digesting any thing, it produces nothing but a heap of crudities.

If their memories retain well, one may say, they have the materials of knowledge ; but, like those for building, they are of no advantage, if there be no other use made of them but to let them lie heaped up together. Opposite to these, there are others who lose the improvement they should make of matters of fact by a quite contrary conduct : they are apt to draw general conclusions, and raise axioms from every particular they meet with. These make as little true benefit of history as the other ; nay, being of forward and active spirits, receive more harm by it ; it being of worse consequence to steer one's thoughts by a wrong rule, than to have none at all ; error doing to busy men much more harm, than ignorance to the slow and sluggish. Between these, those seem to do best, who, taking material and useful hints sometimes from single matters of fact, carry them in their minds to be judged of, by what they shall find in history, to confirm or reverse their imperfect observations ; which may be established into rules fit to be relied on, when they are justified by a sufficient and wary induction of particulars. He that makes no such reflections on what he reads, only loads his mind with a rhapsody of tales, fit, in winter-nights, for the entertainment of others ; and he that will improve every matter of fact into a maxim, will abound in contrary observations, that can be of no other use but to perplex and pudder him, if he compares them ; or else to misguide him, if he gives himself up to the authority of that, which, for

its novelty, or for some other fancy, best pleases him.

### §. 14. BIAS.

Next to these we may place those who suffer their own natural tempers and passions they are possessed with, to influence their judgments, especially of men and things, that may any way relate to their present circumstances and interest. Truth is all simple, all pure, will bear no mixture of any thing else with it: it is rigid and inflexible to any by interests; and so should the understanding be, whose use and excellency lies in conforming itself to it. To think of every thing just as it is in itself, is the proper business of the understanding, though it be not that which men always employ it to. This all men, at first hearing, allow is the right use every one should make of his understanding. Nobody will be at such an open defiance with common sense, as to profess that we should not endeavour to know and think of things as they are in themselves; and yet there is nothing more frequent than to do the contrary; and men are apt to excuse themselves, and think they have reason to do so, if they have but a pretence that it is for God, or a good cause; that is, in effect, for themselves, their own persuasion, or party: for those, in their turns, the several sects of men, especially in matters of religion, entitle God and a good cause. But God requires not men to wrong or misuse their faculties for him, nor to lie to others or themselves, for his sake; which they purposely do, who will not suffer their understandings to have right conceptions of the things proposed to them, and designedly

restrain themselves from having just thoughts of every thing, as far as they are concerned to inquire. And as for a good cause, that needs not such ill helps: if it be good, truth will support it, and it has no need of fallacy or falsehood.

### §. 15. ARGUMENTS.

Very much of kin to this, is the hunting after arguments to make good one side of a question, and wholly to neglect and refuse those which favour the other side. What is this but wilfully to misguide the understanding; and is so far from giving truth its due value, that it wholly debases it; espouse opinions that best comport with their power, profit, or credit, and then seek arguments to support them? Truth light, upon this way, is of no more avail to us than error; for what is so taken up by us may be false as well as true, and he has not done his duty who has thus stumbled upon truth in his way to preferment.

There is another, but more innocent way of collecting arguments, very familiar among bookish men, which is to furnish themselves with the arguments they meet with pro and con in the questions they study. This helps them not to judge right, nor argue strongly; but only to talk copiously on either side, without being steady and settled in their own judgments: for such arguments, gathered from other men's thoughts, floating only in the memory, are there ready, indeed, to supply copious talk with some appearance of reason, but are far from helping us to judge right. Such variety of arguments only distract the understanding that relies on them, unless it has gone farther than such a superficial

way of examining ; this is to quit truth for appearance, only to serve our vanity. The sure and only way to get true knowledge is to form in our minds clear settled notions of things, with names annexed to those determined ideas : these we are to consider, with their several relations and habitudes, and not amuse ourselves with floating names, and words of indetermined signification, which we can use in several senses to serve a turn. It is in the perception of the habitudes and respects our ideas have one to another, that real knowledge consists ; and when a man once perceives how far they agree or disagree one with another, he will be able to judge of what other people say, and will not need to be led by the arguments of others, which are many of them nothing but plausible sophistry. This will teach him to state the question right, and see whereon it turns ; and thus he will stand upon his own legs, and know by his own understanding : whereas, by collecting and learning arguments by heart, he will be but a retainer to others ; and when any one questions the foundations they are built upon, he will be at a nonplus, and be fain to give up his implicit knowledge.

#### §. 16. HASTE.

Labour for labour sake is against nature. The understanding, as well as all the other faculties, chooses always the shortest way to its end, would presently obtain the knowledge it is about, and then set upon some new inquiry. But this, whether laziness or haste, often misleads it, and makes it content itself with improper ways of search, and such as will not serve the turn ; sometimes it rests

upon testimony, when testimony of right has nothing to do, because it is easier to believe than to be scientifically instructed; sometimes it contents itself with one argument, and rests satisfied with that, as it were a demonstration, whereas the thing under proof is not capable of demonstration, and, therefore, must be submitted to the trial of probabilities, and all the material arguments pro and con be examined and brought to a balance. In some cases the mind is determined by probable topics, in inquiries where demonstration may be had. All these, and several others which laziness, impatience, custom, and want of use and attention, lead men into, are misapplications of the understanding in the search of truth. In every question, the nature and manner of the proof it is capable of should be considered, to make our inquiry such as it should be: this would save a great deal of frequently misemployed pains, and lead us sooner to that discovery and possession of truth we are capable of. The multiplying variety of arguments, especially frivolous ones, such as are all that are merely verbal, is not only lost labour, but cumbers the memory to no purpose, and serves only to hinder it from seizing and holding of the truth in all those cases which are capable of demonstration. In such a way of proof the truth and certainty is seen, and the mind fully possesses itself of it; when, in the other way of assent, it only hovers about, and is amused with uncertainties. In this superficial way, indeed, the mind is capable of more variety of plausible talk, but is not enlarged, as it should be, in its knowledge. It is to this same haste and impatience of the mind also,

that a not due tracing of the arguments to their true foundation is owing; men see a little, presume a great deal, and so jump to the conclusion. This is a short way to fancy and conceit, and, if firmly embraced, to opinionatry, but is certainly the farthest way about to knowledge; for he that will know, must, by the connexion of the proofs, see the truth, and the ground it stands on; and, therefore, if he has, for haste, skipped over what he should have examined, he must begin and go over all again, or else he will never come to knowledge.

### §. 17. DESULTORY.

Another fault of as ill consequence as this, which proceeds also from laziness, with a mixture of vanity, is the skipping from one sort of knowledge to another. Some men's tempers are quickly weary of any one thing: constancy and assiduity is what they cannot bear; the same study long continued in, is as intolerable to them, as the appearing long in the same clothes or fashion, is to a court-lady.

### §. 18. SMATTERING.

Others, that they may seem universally knowing, get a little smattering in every thing. Both these may fill their heads with superficial notions of things, but are very much out of the way of attaining truth or knowledge.

### § 19. UNIVERSALITY.

I do not here speak against the taking a taste of every sort of knowledge; it is certainly very useful

and necessary to form the mind ; but then it must be done in a different way, and to a different end : not for talk and vanity to fill the head with shreds of all kinds, that he who is possessed of such a frippery may be able to match the discourses of all he shall meet with, as if nothing could come amiss to him ; and his head was so well stored a magazine, that nothing could be proposed which he was not master of, and was readily furnished to entertain any one on. This is an excellency, indeed, and a great one too, to have a real and true knowledge in all, or most of the objects of contemplation. But it is what the mind of one and the same man can hardly attain unto ; and the instances are so few of those who have, in any measure, approached towards it, that I know not whether they are to be proposed as examples in the ordinary conduct of the understanding. For a man to understand fully the business of his particular calling in the commonwealth, and of religion, which is his calling as he is a man in the world, is usually enough to take up his whole time ; and there are few that inform themselves in these, which is every man's proper and peculiar business, so to the bottom as they should do. But though this be so, and there are very few men that extend their thoughts towards universal knowledge ; yet I do not doubt but if the right way were taken, and the methods of inquiry were ordered as they should be, men of little business and great leisure might go a great deal farther in it than is usually done. To turn to the business in hand ; the end and use of a little insight in those parts of knowledge, which are not a man's proper business, is to accustom our minds to all sorts of

ideas, and the proper ways of examining their habitudes and relations. This gives the mind a freedom; and the exercising the understanding in the several ways of inquiry and reasoning, which the most skilful have made use of, teaches the mind sagacity and wariness, and a suppleness to apply itself more closely and dexterously to the bents and turns of the matter in all its researches. Besides, this universal taste of all the sciences, with an indifference before the mind is possessed with any one in particular, and grown into love and admiration of what is made its darling, will prevent another evil, very commonly to be observed in those who have, from the beginning, been seasoned only by one part of knowledge. Let a man be given up to the contemplation of one sort of knowledge, and that will become every thing: the mind will take such a tincture from a familiarity with that object, that every thing else, how remote soever, will be brought under the same view. A metaphysician will bring ploughing and gardening immediately to abstract notions: the history of nature shall signify nothing to him. An alchymist, on the contrary, shall reduce divinity to the maxims of his laboratory; explain morality by sal, sulphur, and mercury, and allegorize the Scripture itself, and the sacred mysteries thereof, into the philosopher's stone: and I heard once a man, who had a more than ordinary excellency in music, seriously accommodate Moses's seven days of the first week to the notes of music, as if from thence had been taken the measure and method of the creation. It is of no small consequence to keep the mind from such a possession, which I think is best done by giving it

a fair and equal view of the whole intellectual world, wherein it may see the order, rank, and beauty of the whole, and give a just allowance to the distinct provinces of the several sciences in the due order and usefulness of each of them.

If this be that which old men will not think necessary, nor be easily brought to, it is fit, at least, that it should be practised in the breeding of the young. The business of education, as I have already observed, is not, as I think, to make them perfect in any one of the sciences, but so to open and dispose their minds, as may best make them capable of any, when they shall apply themselves to it. If men are, for a long time, accustomed only to one sort or method of thoughts, their minds grow stiff in it, and do not readily turn to another. It is, therefore, to give them this freedom, that I think they should be made to look into all sorts of knowledge, and exercise their understandings in so wide a variety and stock of knowledge. But I do not propose it as a variety and stock of knowledge, but a variety and freedom of thinking; as an increase of the powers and activity of the mind, not as an enlargement of its possessions.

#### §. 20. READING.

This is that which I think great readers are apt to be mistaken in: those who have read of every thing, are thought to understand every thing too; but it is not always so: reading furnishes the mind only with materials of knowledge; it is thinking makes what we read ours. We are of the ruminating kind, and it is not enough to cram ourselves with a great load of collections; unless we chew

them over again, they will not give us strength and nourishment. There are, indeed, in some writers visible instances of deep thoughts, close and acute reasoning, and ideas well pursued. The light these would give would be of great use, if their reader would observe and imitate them: all the rest, at best, are but particulars fit to be turned into knowledge; but that can be done only by our own meditation, and examining the reach, force, and coherence, of what is said; and then, as far as we apprehend and see the connexion of ideas, so far it is ours; without that, it is but so much loose matter floating in our brain. The memory may be stored, but the judgment is little better, and the stock of knowledge not increased by being able to repeat what others have said, or produce the arguments we have found in them. Such a knowledge as this is but knowledge by hear-say, and the ostentation of it is at best but talking by rote, and very often upon weak and wrong principles: for all that is to be found in books, is not built upon true foundations, nor always rightly deduced from the principles it is pretended to be built on. Such an examen as is requisite to discover that, every reader's mind is not forward to make, especially in those who have given themselves up to a party, and only hunt for what they can scrape together, that may favour and support the tenets of it: such men wilfully exclude themselves from truth, and from all true benefit to be received by reading: others, of more indifference, often want attention and industry. The mind is backward in itself to be at the pains to trace every argument to its original, and to see upon what

basis it stands, and how firmly; but yet it is this that gives so much the advantage to one man more than another in reading: the mind should, by severe rules, be tied down to this, at first, uneasy task; use and exercise will give it facility: so that those who are accustomed to it, readily, as it were with one cast of the eye, take a view of the argument, and presently, in most cases, see where it bottoms. Those who have got this faculty, one may say, have got the true key of books, and the clew to lead them through the mizmaze of variety of opinions and authors to truth and certainty. This young beginners should be entered in, and showed the use of, that they might profit by their reading: those who are strangers to it, will be apt to think it too great a clog in the way of men's studies, and they will suspect they shall make but small progress, if, in the books they read, they must stand to examine and unravel every argument, and follow it step by step up to its original.

I answer, this is a good objection, and ought to weigh with those whose reading is designed for much talk and little knowledge, and I have nothing to say to it. But I am here inquiring into the conduct of the understanding in its progress towards knowledge; and to those who aim at that, I may say, that he who fair and softly goes steadily forward in a course that points right, will sooner be at his journey's end than he that runs after every one he meets, though he gallop all day full speed.

To which let me add, that this way of thinking on, and profiting by, what we read, will be a clog

and rub to any one only in the beginning: when custom and exercise have made it familiar, it will be despatched, on most occasions, without resting or interruption in the course of our reading. The motions and views of a mind exercised that way, are wonderfully quick; and a man used to such sort of reflections, sees as much at one glimpse as would require a long discourse to lay before another, and make out in an entire and gradual deduction. Besides that, when the first difficulties are over, the delight and sensible advantage it brings, mightily encourages and enlivens the mind in reading, which, without this, is very improperly called study.

#### §. 21. INTERMEDIATE PRINCIPLES.

As a help to this, I think it may be proposed, that for the saving the long progression of the thoughts to remote and first principles in every case, the mind should provide it several stages; that is to say, intermediate principles, which it might have recourse to in the examining those positions that come in its way. These, though they are not self-evident principles, yet if they had been made out from them by a wary and unquestionable deduction, may be depended on as certain and infallible truths, and serve as unquestionable truths to prove other points depending on them by a nearer and shorter view than remote and general maxims. These may serve as land-marks to show what lies in the direct way of truth, or is quite beside it. And thus mathematicians do, who do not, in every new problem, run it back to the first axioms, through all the whole train of intermediate

propositions : certain theorems, that they have settled to themselves, upon sure demonstration, serve to resolve to them multitudes of propositions, which depend upon them ; and are as firmly made out from thence, as if the mind went afresh over every link of the whole chain that ties them to first self-evident principles: only in other sciences, great care is to be taken, that they establish those intermediate principles, with as much caution, exactness, and indifference, as mathematicians use in the settling any of their great theorems. When this is not done, but men take up the principles in this or that science, upon credit, inclination, interest, &c. in haste, without due examination, and most unquestionable proof, they lay a trap for themselves, and, as much as in them lies, captivate their understandings to mistake falsehood and error.

### §. 22. PARTIALITY.

As there is a partiality to opinions, which, as we have already observed, is apt to mislead the understanding ; so there is often a partiality to studies, which is prejudicial also to knowledge and improvement. Those sciences which men are particularly versed in, they are apt to value and extol, as if that part of knowledge which every one has acquainted himself with, were that alone which was worth the having, and all the rest were idle and empty amusements, comparatively of no use or importance. This is the effect of ignorance, and not knowledge ; the being vainly puffed up with a flatulency, arising from a weak and narrow comprehension. It is not amiss that every one should relish the science that he has made his peculiar study ; a view of its beauties, and

a sense of its usefulness, carries a man on with the more delight and warmth in the pursuit and improvement of it ; but the contempt of all other knowledge, as if it were nothing in comparison of law or physic, of astronomy or chemistry, or perhaps some yet meaner part of knowledge, wherein I have got some smattering, or am somewhat advanced, is not only the mark of a vain or little mind, but does this prejudice in the conduct of the understanding ; that it coops it up within narrow bounds, and hinders it from looking abroad into other provinces of the intellectual world, more beautiful possibly, and more fruitful than that which it had, till then, laboured in ; wherein it might find, besides new knowledge, ways or hints whereby it might be enabled the better to cultivate its own.

### §. 23. THEOLOGY.

There is, indeed, one science (as they are now distinguished) incomparably above all the rest, where it is not by corruption narrowed into a trade or faction, for mean or ill ends, and secular interests ; I mean theology, which, containing the knowledge of God and his creatures, our duty to him and our fellow-creatures, and a view of our present and future state, is the comprehension of all other knowledge directed to its true end ; i. e. the honour and veneration of the Creator, and the happiness of mankind. This is that noble study which is every man's duty, and every one that can be called a rational creature is capable of. The works of nature, and the words of revelation, display it to mankind in characters so large and visible, that those who are not quite blind may in them read and see the

first principles and most necessary parts of it; and from thence, as they have time and industry, may be enabled to go on to the more abstruse parts of it, and penetrate into those infinite depths filled with the treasures of wisdom and knowledge. This is that science which would truly enlarge men's minds, were it studied, or permitted to be studied every where, with that freedom, love of truth, and charity which it teaches, and were not made, contrary to its nature, the occasion of strife, faction, malignity, and narrow impositions. I shall say no more here of this, but that it is undoubtedly a wrong use of my understanding, to make it the rule and measure of another man's; a use which it is neither fit for, nor capable of.

#### §. 24. PARTIALITY.

This partiality, where it is not permitted an authority to render all other studies insignificant or contemptible, is often indulged so far as to be relied upon and made use of in other parts of knowledge, to which it does not at all belong, and wherewith it has no manner of affinity. Some men have so used their heads to mathematical figures, that, giving a preference to the methods of that science, they introduce lines and diagrams into their study of divinity, or politic inquiries, as if nothing could be known without them; and others, accustomed to retired speculations, run natural philosophy into metaphysical notions, and the abstract generalities of logic; and how often may one meet with religion and morality treated of in the terms of the laboratory, and thought to be improved by the methods and notions of chemistry! But he that will take

care of the conduct of his understanding, to direct it right to the knowledge of things, must avoid those undue mixtures, and not, by a fondness for what he has found useful and necessary in one, transfer it to another science, where it serves only to perplex and confound the understanding. It is a certain truth that “*res nolunt male administrari* :” it is no less certain “*res nolunt male intelligi*.” Things themselves are to be considered as they are in themselves, and then they will show us in what way they are to be understood : for to have right conceptions about them, we must bring our understandings to the inflexible natures and unalterable relations of things, and not endeavour to bring things to any preconceived notions of our own.

There is another partiality very commonly observable in men of study, no less prejudicial nor ridiculous, than the former ; and that is a fantastical and wild attributing all knowledge to the ancients alone, or to the moderns. This raving upon antiquity in matter of poetry, Horace has wittily described and exposed in one of his satires. The same sort of madness may be found in reference to all the other sciences. Some will not admit an opinion not authorised by men of old, who were then all giants in knowledge : nothing is to be put into the treasury of truth or knowledge, which has not the stamp of Greece or Rome upon it ; and since their days, will scarce allow that men have been able to see, think, or write. Others, with a like extravagancy, containin all that the ancients have left us ; and being taken with the modern inventions and discoveries, lay by all that went before, as if whatever is called old must have the decay of time

upon it, and truth, too, were liable to mould and rottenness. Men, I think, have been much the same for natural endowments, in all times. Fashion, discipline, and education, have put eminent differences in the ages of several countries, and made one generation much differ from another in arts, and sciences: but truth is always the same; time alters it not, nor is it the better or worse for being of ancient or modern tradition. Many were eminent, in former ages of the world, for their discovery and delivery of it; but though the knowledge they have left us be worth our study, yet they exhausted not all its treasure; they left a great deal for the industry and sagacity of after ages, and so shall we. That was once new to them, which any one now receives with veneration for its antiquity, nor was it the worse for appearing as a novelty; and that which is now embraced for its newness, will to posterity be old, but not thereby be less true or less genuine. There is no occasion, on this account, to oppose the ancients and the moderns to one another, or to be squeamish on either side. He that wisely conducts his mind in the pursuit of knowledge, will gather what lights, and get what helps he can, from either of them, from whom they are best to be had, without adorning the errors, or rejecting the truths, which we may find mingled in them.

Another partiality may be observed, in some to vulgar, in others to heterodox tenets: some are apt to conclude, that what is the common opinion cannot but be true; so many men's eyes, they think, cannot but see right; so many men's understandings of all sorts cannot be deceived; and, therefore,

will not venture to look beyond the received notions of the place and age, nor have so presumptuous a thought as to be wiser than their neighbours. They are content to go with the crowd, and so go easily, which they think is going right, or at least serves them as well: but however “*vox populi vox Dei*” has prevailed as a maxim, yet I do not remember where God ever delivered his oracles by the multitude; or nature, truths by the herd. On the other side, some fly all common opinions as either false or frivolous: the title of many-headed beast, is a sufficient reason to them, to conclude, that no truths of weight or consequence can be lodged there. Vulgar opinions are suited to vulgar capacities, and adapted to the ends of those that govern. He that will know the truth of things, must leave the common and beaten track, which none but weak and servile minds are satisfied to trudge along continually in. Such nice palates relish nothing but strange notions quite out of the way: whatever is commonly received has the mark of the beast on it; and they think it a lessening to them to hearken to it, or receive it; their minds run only after paradoxes; these they seek, these they embrace, these alone they vent; and so, as they think, distinguish themselves from the vulgar. But common or uncommon are not the marks to distinguish truth or falsehood, and therefore, should not be any bias to us in our inquiries: we should not judge of things by men’s opinions, but of opinions by things: the multitude reason but ill, and therefore may be well suspected, and cannot be relied on, nor should be followed, as a sure guide; but philosophers, who have quitted the orthodoxy of

the community, and the popular doctrines of their countries, have fallen into as extravagant and as absurd opinions, as ever common reception countenanced. It would be madness to refuse to breathe the common air, or quench one's thirst with water, because the rabble use them to these purposes ; and if there are conveniences of life, which common use reaches not, it is not reason to reject them, because they are not grown into the ordinary fashion of the country, and every villager doth not know them.

Truth, whether in or out of fashion, is the measure of knowledge, and the business of the understanding ; whatsoever is besides that, however authorised by consent, or recommended by rarity, is nothing but ignorance, or something worse.

Another sort of partiality there is, whereby men impose upon themselves, and by it, make their reading little useful to themselves ; I mean the making use of the opinions of writers, and laying stress upon their authorities, wherever they find them to favour their own opinions.

There is nothing almost has done more harm to men dedicated to letters, than giving the name of study to reading, and making a man of great reading to be the same with a man of great knowledge, or at least to be a title of honour. All that can be recorded in writing are only facts or reasonings : facts are of three sorts :—

1. Merely of natural agents, observable in the ordinary operations of bodies one upon another, whether in the visible course of things left to themselves, or in experiments made by them, applying agents and patients to one another, after a peculiar and artificial manner.

2. Of voluntary agents ; more especially the actions of men in society, which makes civil and moral history.

3. Of opinions.

In these three consists, as it seems to me, that which commonly has the name of learning ; to which, perhaps, some may add a distinct head of critical writings, which indeed at bottom is nothing but matter of fact, and resolves itself into this ; that such a man, or set of men, used such a word or phrase, in such a sense ; i. e. that they made such sounds the marks of such ideas.

Under reasonings, I comprehend all the discoveries of general truths made by human reason, whether found in intuition, demonstration, or probable deductions : and this is that which is, if not alone knowledge, (because the truth or probability of particular propositions may be known too) yet is, as may be supposed, most properly the business of those who pretend to improve their understandings, and make themselves knowing by reading.

Books and reading are looked upon to be the great helps of the understanding, and instruments of knowledge, as it must be allowed that they are ; and yet I beg leave to question whether these do not prove a hinderance to many, and keep several bookish men from attaining to solid and true knowledge. This, I think, I may be permitted to say ; that there is no part wherein the understanding needs a more careful and wary conduct than in the use of books ; without which they will prove rather innocent amusements, than profitable employments of our time, and bring but small additions to our knowledge.

There are not seldom to be found, even amongst

those who aim at knowledge, who, with an unwearied industry, employ their whole time in books ; who scarce allow themselves time to eat or sleep ; but read, and read, and read on, yet make no great advances in real knowledge, though there be no defect in their intellectual faculties, to which their little progress can be imputed. The mistake here is, that it is usually supposed, that by reading, the author's knowledge is transfused into the reader's understanding ; and so it is ; but not by bare reading, but by reading and understanding what he writ : whereby I mean, not barely comprehending what is affirmed or denied in each proposition, (though that great readers do not always think themselves concerned precisely to do) but to see and follow the train of his reasonings, observe the strength and clearness of their connexion, and examine upon what they bottom : without this, a man may read the discourses of a very rational author, writ in a language, and in propositions that he very well understands, and yet acquire not one jot of his knowledge ; which consisting only in the perceived, certain, or probable connexion of the ideas made use of in his reasonings, the reader's knowledge is no farther increased than he perceives that ; so much as he sees of this connexion, so much he knows of the truth or probability of that author's opinions.

All that he relies on, without this perception, he takes upon trust, upon the author's credit, without any knowledge of it at all. This makes me not at all wonder to see some men so abound in citations, and build so much upon authorities, it being the sole foundation on which they bottom most of their own tenets ; so that, in effect, they have but a se-

cond-hand, or implicit knowledge ; i. e. are in the right, if such an one, from whom they borrowed it, were in the right in that opinion which they took from him ; which, indeed, is no knowledge at all. Writers of this, or former ages, may be good witnesses of matter of fact which they deliver, which we may do well to take upon their authority ; but their credit can go no farther than this : it cannot at all affect the truth and falsehood of opinions, which have no other sort of trial but reason and proof, which they themselves made use of, to make themselves knowing ; and so must others too, that will partake in their knowledge. Indeed, it is an advantage, that they have been at the pains to find out the proofs, and lay them in that order that may show the truth or probability of their conclusions ; and for this we owe them great acknowledgments, for saving us the pains in searching out those proofs which they have collected for us, and which, possibly, after all our pains, we might not have found, nor been able to have set them in so good a light as that which they left them us in. Upon this account, we are mightily beholden to judicious writers of all ages, for those discoveries and discourses they have left behind them for our instruction, if we know how to make a right use of them ; which is not to run them over in a hasty perusal, and, perhaps, lodge their opinions, or some remarkable passages in our memories : but to enter into their reasonings, examine their proofs, and then judge of the truth or falsehood, probability or improbability, of what they advance ; not by any opinion we have entertained of the author, but by the evidence he produces, and the conviction he affords us, drawn

from things themselves. Knowing is seeing ; and if it be so, it is madness to persuade ourselves that we do so by another man's eyes, let him use ever so many words to tell us, that what he asserts is very visible : till we ourselves see it with our own eyes, and perceive it by our own understandings, we are as much in the dark, and as void of knowledge as before, let us believe any learned author as much as we will.

Euclid and Archimedes are allowed to be knowing, and to have demonstrated what they say ; and yet, whoever shall read over their writings without perceiving the connexion of their proofs, and seeing what they show ; though he may understand all their words, yet he is not the more knowing : he may believe, indeed, but does not know what they say ; and so is not advanced one jot in mathematical knowledge, by all his reading of those approved mathematicians.

#### §. 25. HASTE.

The eagerness and strong bent of the mind after knowledge, if not warily regulated, is often a hindrance to it : it still presses into farther discoveries and new objects, and catches at the variety of knowledge ; and, therefore, often stays not long enough on what is before it, to look into it as it should, for haste to pursue what is yet out of sight. He that rides post through a country, may be able, from the transient view, to tell how in general the parts lie ; and may be able to give some loose description of here a mountain, and there a plain ; here a morass, and there a river ; woodland in one part, and savannahs in another. Such superficia-

ideas and observations as these, he may collect in galloping over it : but the more useful observations of the soil, plants, animals, and inhabitants, with their several sorts and properties, must necessarily escape him ; and it is seldom men ever discover the rich mines without some digging. Nature commonly lodges her treasure and jewels in rocky ground. If the matter be knotty, and the sense lies deep, the mind must stop and buckle to it, and stick upon it with labour and thought, and close contemplation ; and not leave it till it has mastered the difficulty, and got possession of truth. But here care must be taken to avoid the other extreme : a man must not stick at every useless nicety, and expect mysteries of science in every trivial question or scruple that he may raise : he that will stand to pick up and examine every pebble that comes in his way, is as unlikely to return enriched, and loaden with jewels, as the other that travelled full speed. Truths are not the better nor the worse for their obviousness or difficulty ; but their value is to be measured by their usefulness and tendency. Insignificant observations should not take up any of our minutes ; and those that enlarge our view, and give light towards farther and useful discoveries, should not be neglected, though they stop our course, and spend some of our time in a fixed attention.

There is another haste that does often, and will mislead the mind if it be left to itself, and its own conduct. The understanding is naturally forward, not only to learn its knowledge by variety (which makes it skip over one to get speedily to another part of knowledge) but also eager to enlarge its

views, by running too fast into general observations and conclusions, without a due examination of particulars enough whereon to found those general axioms. This seems to enlarge their stock, but it is of fancies, not realities: such theories, built upon narrow foundations, stand but weakly, and if they fall not of themselves, are, at least, very hardly to be supported against the assaults of opposition: and thus men being too hasty to erect to themselves general notions and ill-grounded theories, find themselves deceived in their stock of knowledge, when they come to examine their hastily assumed maxims themselves, or to have them attacked by others. General observations drawn from particulars, are the jewels of knowledge, comprehending great store in a little room; but they are, therefore, to be made with the greater care and caution, lest, if we take counterfeit for true, our loss and shame be the greater when our stock comes to a severe scrutiny. One or two particulars may suggest hints of inquiry, and they do well to take those hints; but if they turn them into conclusions, and make them presently general rules; they are forward indeed, but it is only to impose on themselves, by propositions assumed for truths, without sufficient warrant. To make such observations, is, as has been already remarked, to make the head a magazine of materials, which can hardly be called knowledge; or, at least, it is but like a collection of lumber not reduced to use or order; and he that makes every thing an observation, has the same useless plenty, and much more falsehood mixed with it: the extremes on both sides are to be avoided, and he will be able to give the best ac-

count of his studies, who keeps his understanding in the right mean between them.

### §. 26. ANTICIPATION.

Whether it be a love of that which brings the first light and information to their minds, and want of vigour and industry to inquire ; or else that men content themselves with any appearance of knowledge, right or wrong, which, when they have once got, they will hold fast : this is visible, that many men give themselves up to the first anticipations of their minds, and are very tenacious of the opinions that first possess them ; they are often as fond of their first conceptions, as of their first-born, and will, by no means, recede from the judgment they have once made, or any conjecture or conceit which they have once entertained. This is a fault in the conduct of the understanding, since this firmness, or rather stiffness of the mind, is not from an adherence to truth, but a submission to prejudice. It is an unreasonable homage paid to prepossession, whereby we show a reverence, not to (what we pretend to seek) truth, but what by hap-hazard we chance to light on, be it what it will. This is visibly a preposterous use of our faculties, and is a downright prostituting of the mind to resign it thus, and put it under the power of the first comer. This can never be allowed, or ought to be followed, as a right way to knowledge, till the understanding (whose business it is to conform itself to what it finds in the objects without) can, by its own opinionatry, change that, and make the unalterable nature of things comply with its own hasty determinations, which will never be. Whatever we

fancy, things keep their course ; and the habitudes, correspondences, and relations, keep the same to one another.

### §. 27. RESIGNATION.

Contrary to these, but by a like dangerous excess on the other side, are those who always resign their judgment to the last man they heard or read. Truth never sinks into these men's minds, nor gives any tincture to them ; but, cameleon like, they take the colour of what is laid before them, and as soon lose and resign it to the next that happens to come in their way. The order wherein opinions are proposed or received by us, is no rule of their rectitude, nor ought it to be a cause of their preference : first or last in this case, is the effect of chance, and not the measure of truth or falsehood : this every one must confess, and therefore should, in the pursuit of truth, keep his mind free from the influence of any such accidents. A man may as reasonably draw cuts for his tenets, regulate his persuasion by the cast of a dye, as take it up for its novelty, or retain it because it had its first assent, and he was never of another mind. Well-weighed reasons are to determine the judgment ; those the mind should be always ready to hearken and submit to, and by their testimony and suffrage, entertain or reject any tenet indifferently, whether it be a perfect stranger, or an old acquaintance.

### §. 28. PRACTICE.

Though the faculties of the mind are improved by exercise, yet they must not be put to a stress beyond their strength. “ Quid valeant humeri,

quid ferre recusent," must be made the measure of every one's understanding, who has a desire not only to perform well, but to keep up the vigour of his faculties, and not to balk his understanding by what is too hard for it. The mind, by being engaged in a task beyond its strength, like the body, strained by lifting at a weight too heavy, has often its force broken, and thereby gets an unaptness or an aversion to any vigorous attempt ever after. A sinew cracked seldom recovers its former strength, or, at least, the tenderness of the sprain remains a good while after, and the memory of it longer; and leaves a lasting caution in the man, not to put the part quickly again to any robust employment. So it fares in the mind once jaded by an attempt above its power; it either is disabled for the future, or else checks at any vigorous undertaking ever after; at least, is very hardly brought to exert its force again on any subject that requires thought and meditation. The understanding should be brought to the difficult and knotty parts of knowledge, that try the strength of thought, and a full bent of the mind, by insensible degrees; and in such a gradual proceeding, nothing is too hard for it. Nor let it be objected, that such a slow progress will never reach the extent of some sciences. It is not to be imagined how far constancy will carry a man: however, it is better walking slowly in a rugged way, than to break a leg and be a cripple: he that begins with the calf may carry the ox; but he that will at first go to take up an ox, may so disable himself, as not to be able to lift up a calf after that. When the mind, by insensible degrees, has brought itself to attention and close thinking, it will be able to

cope with difficulties, and master them without any prejudice to itself, and then it may go on roundly. Every abstruse problem, every intricate question, will not baffle, discourage, or break it. But though putting the mind unprepared upon an unusual stress, that may discourage or damp it for the future, ought to be avoided ; yet this must not run it, by an over-great shyness of difficulties, into a lazy sauntering about ordinary and obvious things, that demand no thought or application. This debases and enervates the understanding, makes it weak and unfit for labour : this is a sort of hovering about the surface of things, without any insight into them, or penetration ; and when the mind has been once habituated to this lazy recumbency and satisfaction on the obvious surface of things, it is in danger to rest satisfied there, and go no deeper, since it cannot do it without pains and digging. He that has for some time accustomed himself to take up with what easily offers itself at first view, has reason to fear he shall never reconcile himself to the fatigue of turning and tumbling things in his mind, to discover their more retired and more valuable secrets.

It is not strange that methods of learning which scholars have been accustomed to in their beginning and entrance upon the sciences, should influence them all their lives, and be settled in their minds by an over-ruling reverence, especially if they be such as universal use has established. Learners must, at first, be believers ; and their master's rules having been once made axioms to them, it is no wonder they should keep that dignity ; and by the authority they have once got, mislead those, who

think it sufficient to excuse them, if they go out of their way in a well-beaten track.

### §. 29. WORDS.

I have copiously enough spoken of the abuse of words in another place, and therefore shall, upon this reflection, that the sciences are full of them, warn those that would conduct their understandings right, not to take any term, howsoever authorised by the language of the schools, to stand for any thing till they have an idea of it. A word may be of frequent use, and great credit, with several authors, and be by them made use of as if it stood for some real being ; but yet, if he that reads cannot frame any distinct idea of that being, it is certainly to him a mere empty sound without a meaning ; and he learns no more by all that is said of it, or attributed to it, than if it were affirmed only of that bare empty sound. They who would advance in knowledge, and not deceive and swell themselves with a little articulated air, should lay down this as a fundamental rule, not to take words for things, nor suppose that names in books signify real entities in nature, till they can frame clear and distinct ideas of those entities : it will not, perhaps, be allowed, if I should set down “substantial forms” and “intentional species,” as such that may justly be suspected to be of this kind of insignificant terms. But this I am sure, to one that can form no determined ideas of what they stand for, they signify nothing at all ; and all that he thinks he knows about them, is to him so much knowledge about nothing, and amounts, at most, but to be a learned ignorance. It is not without

all reason supposed, that there are many such empty terms to be found in some learned writers, to which they had recourse to etch out their systems, where their understandings could not furnish them with conceptions from things : but yet, I believe, the supposing of some realities in nature, answering those and the like words, have much perplexed some, and quite misled others in the study of nature. That which in any discourse signifies, “I know not what,” should be considered “I know not when.” Where men have any conceptions, they can, if they are never so abstruse or abstracted, explain them, and the terms they use for them ; for our conceptions being nothing but ideas, which are all made up of simple ones ; if they cannot give us the ideas their words stand for, it is plain they have none. To what purpose can it be, to hunt after his conceptions, who has none, or none distinct ? He that knew not what he himself meant by a learned term, cannot make us know any thing by his use of it, let us beat our heads about it never so long. Whether we are able to comprehend all the operations of nature, and the manners of them, it matters not to inquire ; but this is certain, that we can comprehend no more of them than we can distinctly conceive ; and, therefore, to obtrude terms where we have no distinct conceptions, as if they did contain, or rather conceal something ; is but an artifice of learned vanity, to cover a defect in an hypothesis or our understandings. Words are not made to conceal, but to declare and show something ; where they are by those, who pretend to instruct, otherwise used, they conceal indeed something ; but that that they

conceal is nothing but the ignorance, error, or sophistry of the talker; for there is, in truth, nothing else under them.

### §. 30. WANDERING.

That there is a constant succession and flux of ideas in our minds, I have observed in the former part of this Essay; and every one may take notice of it in himself. This, I suppose, may deserve some part of our care in the conduct of our understandings; and I think it may be of great advantage, if we can, by use, get that power over our minds, as to be able to direct that train of ideas, that so, since there will new ones perpetually come into our thoughts by a constant succession, we may be able, by choice, so to direct them, that none may come in view, but such as are pertinent to our present inquiry, and in such order as may be most useful to the discovery we are upon; or, at least, if some foreign and unsought ideas will offer themselves, that yet we might be able to reject them, and keep them from taking off our minds from its present pursuit, and hinder them from running away with our thoughts quite from the subject in hand. This is not, I suspect, so easy to be done, as, perhaps, may be imagined; and yet, for aught I know, this may be, if not the chief, yet one of the great differences that carry some men in their reasoning so far beyond others, where they seem to be naturally of equal parts. A proper and effectual remedy for this wandering of thoughts I would be glad to find: he that shall propose such a one, would do great service to the studious and contemplative part of mankind, and, perhaps, help unthinking men to

become thinking. I must acknowledge, that hitherto, I have discovered no other way to keep our thoughts close to their business, but the endeavouring, as much as we can, and by frequent attention and application, getting the habit of attention and application. He that will observe children, will find, that even when they endeavour their utmost, they cannot keep their minds from straggling. The way to cure it, I am satisfied, is not angry chiding, or beating, for that presently fills their heads with all the ideas that fear, dread, or confusion can offer to them. To bring back gently their wandering thoughts, by leading them into the path, and going before them in the train they should pursue, without any rebuke, or so much as taking notice (where it can be avoided) of their roving, I suppose, would sooner reconcile and inure them to attention, than all those rougher methods, which more distract their thought, and, hindering the application they would promote, introduce a contrary habit.

### §. 31. DISTINCTION.

Distinction and division, are (if I mistake not the import of the words) very different things; the one being the perception of a difference that nature has placed in things, the other, our making a division where there is yet none: at least, if I may be permitted to consider them in this sense, I think I may say of them, that one of them is the most necessary and conducive to true knowledge that can be; the other, when too much made use of, serves only to puzzle and confound the understanding. To observe every the least difference that is in things,

argues a quick and clear sight ; and this keeps the understanding steady and right in its way to knowledge : but though it be useful to discern every variety that is to be found in nature, yet it is not convenient to consider every difference that is in things, and divide them into distinct classes under every such difference. This will run us, if followed, into particulars, (for every individual has something that differences it from another) and we shall be able to establish no general truths, or else, at least, shall be apt to perplex the mind about them. The collection of several things into several classes, gives the mind more general and larger views ; but we must take care to unite them only in that, and so far as they do agree, for so far they may be united under the consideration ; for entity itself, that comprehends all things, as general as it is, may afford us clear and rational conceptions. If we would weigh and keep in our minds what it is we are considering, that would best instruct us when we should or should not branch into farther distinctions, which are to be taken only from a due contemplation of things, to which there is nothing more opposite than the art of verbal distinctions, made at pleasure, in learned and arbitrarily invented terms, to be applied at a venture, without comprehending or conveying any distinct notions ; and so altogether fitted to artificial talk, or empty noise in dispute, without any clearing of difficulties, or advance in knowledge. Whatsoever subject we examine, and would get knowledge in, we should, I think, make as general and as large as it will bear ; nor can there be any danger of this, if the idea of it be settled and determined : for if that be so, we shall easily distinguish it from any other

idea, though comprehended under the same name. For it is to fence against the entanglements of equivocal words, and the great art of sophistry which lies in them, that distinctions have been multiplied, and their use thought so necessary: but had every distinct abstract idea a distinct known name, there would be little need of these multiplied scholastic distinctions, though there would be, nevertheless, as much need still, of the mind's observing the differences that are in things, and discriminating them thereby, one from another. It is not, therefore, the right way to knowledge, to hunt after, and fill the head with abundance of artificial and scholastic distinctions, wherewith learned men's writings are often filled: we sometimes find what they treat of, so divided and subdivided, that the mind of the most attentive reader loses the sight of it, as it is more than probable the writer himself did; for in things crumbled into dust, it is in vain to affect or pretend order, or expect clearness. To avoid confusion by too few or too many divisions, is a great skill in thinking as well as writing, which is but the copying our thoughts: but what are the boundaries of the mean between the two vicious excesses on both hands, I think, is hard to set down in words; clear and distinct ideas being all that I yet know able to regulate it. But as to verbal distinctions received and applied to common terms, *i.e.* equivocal words, they are, more properly, I think, the business of criticisms and dictionaries, than of real knowledge and philosophy, since they, for the most part, explain the meaning of words, and give us their several significations. The dexterous management of terms, and being able to fend and prove

with them, I know, has, and does pass in the world for a great part of learning; but it is learning distinct from knowledge, for knowledge consists only in perceiving the habitudes and relations of ideas one to another, which is done without words; the intervention of a sound helps nothing to it: and hence, we see that there is least use of distinctions where there is most knowledge; I mean in mathematics, where men have determined ideas without known names to them; and so there being no room for equivocations, there is no need of distinctions. In arguing, the opponent uses as comprehensive and equivocal terms as he can, to involve his adversary in the doubtfulness of his expressions; this is expected, and, therefore, the answerer, on his side, makes it his play to distinguish as much as he can, and thinks he can never do it too much; nor can he, indeed, in that way wherein victory may be had without truth and without knowledge. This seems to me to be the art of disputing. Use your words as captiously as you can in your arguing on one side, and apply distinctions as much as you can on the other side to every term, to nonplus your opponent; so that, in this sort of scholarship, there being no bounds set to distinguishing, some men have thought all acuteness to have lain in it; and, therefore, in all they have read or thought on, their great business has been to amuse themselves with distinctions, and multiply to themselves divisions, at least more than the nature of the thing required. There seems to me, as I said, to be no other rule for this, but a due and right consideration of things as they are in themselves. He that has settled in his mind determined ideas, with

names affixed to them, will be able both to discern their differences one from another, (which is really distinguishing,) and, where the penury of words affords not terms answering every distinct idea, will be able to apply proper distinguishing terms to the comprehensive and equivocal names he is forced to make use of. This is all the need I know of distinguishing terms; and in such verbal distinctions, each term of the distinction, joined to that whose signification it distinguishes, is but a distinct name for a distinct idea. Where they are so, and men have clear and distinct conceptions that answer their verbal distinctions, they are right, and are pertinent as far as they serve to clear any thing in the subject under consideration. And this is that which seems to me the proper and only measure of distinctions and divisions, which he that will conduct his understanding right, must not look for in the acuteness of invention nor the authority of writers, but will find only in the consideration of things themselves, whether he is led into it by his own meditations, or the information of books.

An aptness to jumble things together, wherein can be found any likeness, is a fault in the understanding on the other side, which will not fail to mislead it, and, by thus lumping of things, hinder the mind from distinct and accurate conceptions of them.

### §. 32. SIMILES.

To which let me here add another near of kin to this, at least in name, and that is letting the mind, upon the suggestion of any new notion, run immediately after similes to make it the clearer to itself,

which, though it may be a good way, and useful in the explaining our thoughts to others, yet it is by no means a right method to settle true notions of any thing in ourselves, because similes always fail in some part, and come short of that exactness which our conceptions should have to things, if we would think aright. This, indeed, makes men plausible talkers, for those are always most acceptable in discourse who have the way to let their thoughts into other men's minds with the greatest ease and facility; whether those thoughts are well formed and correspond with things, matters not: few men care to be instructed but at an easy rate. They, who in their discourse strike the fancy, and take the hearer's conceptions along with them as fast as their words flow, are the applauded talkers, and go for the only men of clear thoughts. Nothing contributes so much to this as similes, whereby men think they themselves understand better, because they are the better understood. But it is one thing to think right, and another thing to know the right way to lay our thoughts before others with advantage and clearness, be they right or wrong. Well-chosen similes, metaphors, and allegories, with method and order, do this the best of any thing, because, being taken from objects already known and familiar to the understanding, they are conceived as fast as spoken; and the correspondence being concluded, the thing they are brought to explain and elucidate is thought to be understood too. Thus fancy passes for knowledge, and what is prettily said is mistaken for solid. I say not this to decry metaphor, or with design to take away that orna-

ment of speech; my business here is not with rhetoricians and orators, but with philosophers and lovers of truth, to whom I would beg leave to give this one rule whereby to try whether, in the application of their thoughts to any thing for the improvement of their knowledge, they do in truth comprehend the matter before them really such as it is in itself. The way to discover this is to observe whether, in the laying it before themselves or others, they make use only of borrowed representations, and ideas foreign to the things, which are applied to it by way of accommodation, as bearing some proportion or imagined likeness to the subject under consideration. Figured and metaphorical expressions do well to illustrate more abstruse and unfamiliar ideas which the mind is not yet thoroughly accustomed to; but then they must be made use of to illustrate ideas that we already have, not to paint to us those which we yet have not. Such borrowed and allusive ideas may follow real and solid truth, to set it off when found, but must by no means be set in its place, and taken for it. If all our search has yet reached no farther than simile and metaphor, we may assure ourselves we rather fancy than know, and have not yet penetrated into the inside and reality of the thing, be it what it will, but content ourselves with what our imaginations, not things themselves, furnish us with.

### §. 33. ASSENT.

In the whole conduct of the understanding, there is nothing of more moment than to know when and where, and how far to give assent; and possibly

there is nothing harder. It is very easily said, and nobody questions it, that giving and withholding our assent, and the degrees of it, should be regulated by the evidence which things carry with them; and yet we see men are not the better for this rule; some firmly embrace doctrines upon slight grounds, some upon no grounds, and some contrary to appearance; some admit of certainty, and are not to be moved in what they hold; others waver in every thing; and there want not those that reject all as uncertain. What then shall a novice, an inquirer, a stranger, do in the case? I answer, use his eyes. There is a correspondence in things, and agreement and disagreement in ideas, discernible in very different degrees, and there are eyes in men to see them, if they please; only their eyes may be dimmed or dazzled, and the discerning sight in them impaired or lost. Interest and passion dazzle; the custom of arguing on any side, even against our persuasions, dins the understanding, and makes it, by degrees, lose the faculty of discerning clearly between truth and falsehood, and so of adhering to the right side. It is not safe to play with error, and dress it up to ourselves or others in the shape of truth: the mind, by degrees, loses its natural relish of real solid truth, is reconciled insensibly to any thing that can be dressed up into any faint appearance of it; and, if the fancy be allowed the place of judgment at first in sport, it afterwards comes by use to usurp it; and what is recommended by this flatterer (that studies but to please) is received for good. There are so many ways of fallacy, such arts of giving colours, appearances, and resemblances, by this court-dresser, the

fancy, that he who is not wary to admit nothing but truth itself, very careful not to make his mind subservient to any thing else, cannot but be caught. He that has a mind to believe, has half assented already; and he that, by often arguing against his own sense, imposes falsehood on others, is not far from believing himself. This takes away the great distance there is betwixt truth and falsehood; it brings them almost together, and makes it no great odds, in things that approach so near, which you take; and when things are brought to that pass, passion or interest, &c. easily, and without being perceived, determine which shall be the right.

#### §. 34. INDIFFERENCE.

I have said above, that we should keep a perfect indifference for all opinions, not wish any of them true, or try to make them appear so; but, being indifferent, receive and embrace them according as evidence, and that alone, gives the attestation of truth. They that do thus, *i.e.* keep their minds indifferent to opinions, to be determined only by evidence, will always find the understanding has perception enough to distinguish between evidence and no evidence, betwixt plain and doubtful; and if they neither give nor refuse their assent but by that measure, they will be safe in the opinions they have: which being, perhaps, but few, this caution will have also this good in it, that it will put them upon considering, and teach them the necessity of examining more than they do; without which the mind is but a receptacle of inconsistencies, not the store-house of truths. They that do not keep up

this indifference in themselves for all but truth, not supposed, but evidenced in themselves, put coloured spectacles before their eyes, and look on things through false glasses, and then think themselves excused in following the false appearances which they themselves put upon them. I do not expect that by this way the assent should in every one be proportioned to the grounds and clearness wherewith every truth is capable to be made out; or that men should be perfectly kept from error; that is more than human nature can by any means be advanced to; I aim at no such unattainable privilege; I am only speaking of what they should do, who would deal fairly with their own minds, and make a right use of their faculties in the pursuit of truth; we fail them a great deal more than they fail us. It is mismanagement, more than want of abilities, that men have reason to complain of, and which they actually do complain of, in those that differ from them. He that, by indifference for all but truth, suffers not his assent to go faster than his evidence, nor beyond it; will learn to examine, and examine fairly instead of presuming, and nobody will be at a loss, or in danger, for want of embracing those truths which are necessary in his station and circumstances. In any other way but this, all the world are born to orthodoxy; they imbibe at first the allowed opinions of their country and party, and so, never questioning their truth, not one of a hundred ever examines: they are applauded for presuming they are in the right. He that considers is a foe to orthodoxy, because, possibly, he may deviate from some of the received doctrines there; and thus men, without any in-

dustry or acquisition of their own, inherit local truths, (for it is not the same every where,) and are inured to assent without evidence. This influences farther than is thought : for what one of a hundred of the zealous bigots in all parties ever examined the tenets he is so stiff in, or ever thought it his business or duty so to do ? It is suspected of lukewarmness to suppose it necessary, and a tendency to apostasy to go about it : and if a man can bring his mind once to be positive and fierce for positions, whose evidence he has never once examined, and that in matters of greatest concernment to him, what shall keep him from this short and easy way of being in the right in cases of less moment ? Thus we are taught to clothe our minds as we do our bodies, after the fashion in vogue, and it is accounted fantasticalness, or something worse, not to do so. This custom (which who dares oppose ?) makes the short-sighted bigots, and the warier sceptics, as far as it prevails ; and those that break from it are in danger of heresy ; for, taking the whole world, how much of it doth truth and orthodoxy possess together ? Though it is by the last alone (which has the good luck to be every where) that error and heresy are judged of ; for argument and evidence signify nothing in the case, and excuse no where, but are sure to be borne down in all societies by the infallible orthodoxy of the place. Whether this be the way to truth and right assent, let the opinions that take place and prescribe in the several habitable parts of the earth, declare. I never saw any reason yet why truth might not be trusted on its own evidence : I am sure if that be not able to support it,

there is no fence against error, and then truth and falsehood are but names that stand for the same things. Evidence, therefore, is that by which alone every man is (and should be) taught to regulate his assent, who is then, and then only, in the right way, when he follows it.

Men deficient in knowledge are usually in one of these three states; either wholly ignorant; or, as doubting of some proposition they have either embraced formerly, or are at present inclined to; or, lastly, they do with assurance hold and profess without ever having examined and being convinced by well-grounded arguments.

The first of these are in the best state of the three, by having their minds yet in their perfect freedom and indifference; the likelier to pursue truth the better, having no bias yet clapped on to mislead them.

§. 35. For ignorance, with an indifference for truth, is nearer to it than opinion with ungrounded inclination, which is the great source of error; and they are more in danger to go out of the way, who are marching under the conduct of a guide, that it is a hundred to one will mislead them, than he that not yet has taken a step, and is likelier to be prevailed on to inquire after the right way. The last of the three sorts are in the worst condition of all; for if a man can be persuaded and fully assured of any thing for a truth, without having examined, what is there that he may not embrace for truth? and if he has given himself up to believe a lie, what means is there left to recover one who can be assured without examining? To the other two this I crave leave to say, that as he that is ignorant

is in the best state of the two, so he should pursue truth in a method suitable to that state, *i. e.* by inquiring directly into the nature of the thing itself, without minding the opinions of others, or troubling himself with their questions or disputes about it, but to see what he himself can, sincerely searching after truth, find out. He that proceeds upon other principles in his inquiry into any sciences, though he be resolved to examine them and judge of them freely, does yet at least put himself on that side, and post himself in a party, which he will not quit till he be beaten out; by which the mind is inseusibly engaged to make what difference it can, and so is unawares biassed. I do not say but a man should embrace some opinion when he has examined, else he examines to no purpose; but the surest and safest way is to have no opinion at all till he has examined, and that without any the least regard to the opinions or systems of other men about it. For example, were it my business to understand physic, would not the safe and readier way be to consult nature herself, and inform myself in the history of diseases and their cures, than espousing the principles of the dogmatists, methodists, or chemists, to engage in all the disputes concerning either of those systems; and suppose it to be true, till I have tried what they can say to beat me out of it? Or, supposing that Hippocrates, or any other book, infallibly contains the whole art of physic, would not the direct way be to study, read, and consider that book, weigh and compare the parts of it to find the truth, rather than espouse the doctrines of any party? who, though they acknowledge his authority, have already interpreted and

wire-drawn all his text to their own sense; the tincture whereof, when I have imbibed, I am more in danger to misunderstand his true meaning, than if I had come to him with a mind unprepossessed by doctors and commentators of my sect, whose reasonings, interpretation, and language, which I have been used to, will of course make all chime that way, and make another, and perhaps the genuine meaning of the authors, seem harsh, strained, and uncouth to me: for words, having naturally none of their own, carry that signification to the hearer, that he is used to put upon them, whatever be the sense of him that uses them. This, I think, is visibly so; and if it be, he that begins to have any doubt of any of his tenets, which he received without examination, ought, as much as he can, to put himself wholly into this state of ignorance in reference to that question; and, throwing wholly by all his former notions, and the opinions of others, examine, with a perfect indifference, the question in its source, without any inclination to either side, or any regard to his or others' unexamined opinions. This I own is no easy thing to do; but I am not inquiring the easy way to opinion, but the right way to truth, which they must follow who will deal fairly with their own understandings and their own souls.

#### §. 36. QUESTION.

The indifference that I here propose will also enable them to state the question right, which they are in doubt about, without which they can never come to a fair and clear decision of it.

**§. 37. PERSEVERANCE.**

Another fruit from this indifference, and the considering things in themselves abstract from our own opinions and other men's notions and discourses on them, will be, that each man will pursue his thoughts in that method which will be most agreeable to the nature of the thing, and to his apprehension of what it suggests to him; in which he ought to proceed with regularity and constancy, until he come to a well-grounded resolution wherein he may acquiesce. If it be objected that this will require every man to be a scholar, and quit all his other business, and betake himself wholly to study, I answer, I propose no more to any one than he has time for. Some men's state and condition requires no great extent of knowledge; the necessary provision for life swallows the greatest part of their time: but one man's want of leisure is no excuse for the oscitancy and ignorance of those who have time to spare; and every one has enough to get as much knowledge as is required and expected of him, and he that does not that is in love with ignorance, and is accountable for it.

**§. 38. PRESUMPTION.**

The variety of distempers in men's minds is as great as of those in their bodies; some are epidemic, few escape them; and every one too, if he would look into himself, would find some defect of his particular genius. There is scarce any one without some idiosyncrasy that he suffers by. This man presumes upon his parts, that they will not fail him at time of need, and so thinks it super-

fluous labour to make any provision before-hand: his understanding is to him like Fortunatus's purse, which is always to furnish him, without ever putting any thing into it before-hand; and so he sits still satisfied, without endeavouring to store his understanding with knowledge. It is the spontaneous product of the country, and what need of labour in tillage? Such men may spread their native riches before the ignorant, but they were best not to come to stress and trial with the skilful. We are born ignorant of every thing. The superficies of things that surround them, make impressions on the negligent, but nobody penetrates into the inside without labour, attention, and industry. Stones and timber grow of themselves, but yet there is no uniform pile with symmetry and convenience to lodge in without toil and pains. God has made the intellectual world harmonious and beautiful without us, but it will never come into our heads all at once; we must bring it home piece-meal, and there set it up by our own industry, or else we shall have nothing but darkness and a chaos within, whatever order and light there be in things without us.

### §. 39. DESPONDENCY.

On the other side, there are others that depress their own minds, despond at the first difficulty, and conclude that the getting an insight in any of the sciences, or making any progress in knowledge farther than serves their ordinary business, is above their capacities: these sit still, because they think they have not got legs to go, as the others I last mentioned do, because they think they have wings

to fly, and can soar on high when they please. To these latter one may, for answer, apply the proverb, “Use legs and have legs.” Nobody knows what strength of parts he has till he has tried them; and of the understanding one may most truly say, that its force is greater, generally, than it thinks, till it is put to it. “Viresque acquirit eundo.”

And, therefore, the proper remedy here is but to set the mind to work, and apply the thoughts vigorously to the business; for it holds in the struggles of the mind as in those of war, “Dum putant se vincere vicère:” A persuasion that we shall overcome any difficulties that we meet with in the sciences, seldom fails to carry us through them. Nobody knows the strength of his mind, and the force of steady and regular application, till he has tried. This is certain, he that sets out upon weak legs, will not only go farther, but grow stronger too than one, who, with a vigorous constitution and firm limbs, only sits still.

Something of kin to this, men may observe in themselves, when the mind frights itself (as it often does) with any thing reflected on in gross, and transiently viewed confusedly, and at a distance. Things thus offered to the mind, carry the show of nothing but difficulty in them, and are thought to be wrapped up in impenetrable obscurity: but the truth is, these are nothing but spectres that the understanding raises to itself to flatter its own laziness: it seeks nothing distinctly in things remote, and in a huddle, and, therefore, concludes too faintly that there is nothing more clear to be discovered in them. It is but to approach nearer, and that mist of our own raising,

that enveloped them, will remove ; and those that in that mist appeared hideous giants not to be grappled with, will be found to be of the ordinary and natural size and shape. Things that, in a remote and confused view, seem very obscure, must be approached by gentle and regular steps ; and, what is most visible, easy, and obvious in them first considered. Reduce them into their distinct parts, and then, in their due order, bring all that should be known concerning every one of those parts into plain and simple questions ; and then what was thought obscure, perplexed, and too hard for our weak parts, will lay itself open to the understanding in a fair view, and let the mind into that which before it was awed with, and kept at a distance from, as wholly mysterious. I appeal to my reader's experience, whether this has never happened to him, especially when busy on one thing, he has occasionally reflected on another. I ask him whether he has never thus been scared with a sudden opinion of mighty difficulties, which yet have vanished, when he has seriously and methodically applied himself to the consideration of this seeming terrible subject : and there has been no other matter of astonishment left, but that he amused himself with so discouraging a prospect of his own raising, about a matter, which, in the handling, was found to have nothing in it more strange nor intricate than several other things which he had long since, and with ease, mastered. This experience would teach us how to deal with such bugbears another time, which should rather serve to excite our vigour than enervate our industry. The surest way for a learner in this, as in all other cases,

is not to advance by jumps and large strides ; let that which he sets himself to learn next be indeed the next, *i.e.* as nearly conjoined with what he knows already as is possible ; let it be distinct, but not remote from it ; let it be new, and what he did not know before, that the understanding may advance ; but let it be as little at once as may be, that its advances may be clear and sure. All the ground that it gets this way it will hold. This distinct gradual growth in knowledge is firm and sure, it carries its own light with it in every step of its progression in an easy and orderly train ; than which there is nothing of more use to the understanding. And though this, perhaps, may seem a very slow and lingering way to knowledge, yet I dare confidently affirm, that whoever will try it in himself, or any one he will teach, shall find the advances greater in this method, than they would in the same space of time have been in any other he could have taken. The greatest part of true knowledge lies in a distinct perception of things in themselves distinct : and some men give more clear light and knowledge by the bare distinct stating of a question, than others by talking of it in gross whole hours together. In this they who so state a question, do no more but separate and disentangle the parts of it one from another, and lay them, when so disentangled, in their due order : this often, without any more ado, resolves the doubt, and shows the mind where the truth lies. The agreement or disagreement of the ideas in question, when they are once separated and distinctly considered, is, in many cases, presently perceived, and thereby clear and lasting knowledge gained ; where-

as things in gross taken up together, and so lying together in confusion, can produce in the mind but a confused, which in effect is no, knowledge ; or, at least, when it comes to be examined and made use of, will prove little better than none. I therefore take the liberty to repeat here again what I have said elsewhere ; that in learning any thing as little should be proposed to the mind at once as is possible, and, that being understood and fully mastered, to proceed to the next adjoining part yet unknown ; simple unperplexed proposition belonging to the matter in hand, and tending to the clearing what is principally designed.

#### §. 40. ANALOGY.

Analogy is of great use to the mind in many cases, especially in natural philosophy, and that part of it chiefly which consists in happy and successful experiments : but here we must take care that we keep ourselves within that wherein the analogy consists. For example, the acid oil of vitriol is found to be good in such a case, therefore the spirit of nitre or vinegar may be used in the like case ; if the good effect of it be owing wholly to the acidity of it, the trial may be justified ; but if there be something else besides the acidity in the oil of vitriol, which produces the good we desire in the case, we mistake that for analogy which is not, and suffer our understanding to be misguided by a strong supposition of analogy where there is none.

#### §. 41. ASSOCIATION.

Though I have, in the second book of my Essay

concerning Human Understanding, treated of the association of ideas, yet, having done it there historically, as giving a view of the understanding in this as well as its several other ways of operating rather than designing there to inquire into the remedies that ought to be applied to it; it will, under this latter consideration, afford other matter of thought to those who have a mind to instruct themselves thoroughly in the right way of conducting their understandings; and that the rather, because this, if I mistake not, is as frequent a cause of mistake and error in us, as, perhaps, any thing else that can be named, and is a disease of the mind as hard to be cured as any, it being a very hard thing to convince any one that things are not so, and naturally so, as they constantly appear to him.

By this one easy and unheeded miscarriage of the understanding, sandy and loose foundations become infallible principles, and will not suffer themselves to be touched or questioned; such unnatural connexions become, by custom, as natural to the mind, as sun and light, fire and warmth go together, and so seem to carry with them as natural an evidence as self-evident truths themselves. And where then shall one, with hopes of success, begin the cure? Many men firmly embrace falsehood for truth; not only because they never thought otherwise, but also, because, thus blinded as they have been from the beginning, they never could think otherwise; at least, without a vigour of mind able to contest the empire of habit, and look into its own principles; a freedom, which few men have the notion of in themselves, and fewer are allowed the practice

of by others ; it being the great art and business of the teachers and guides in most sects, to suppress, as much as they can, this fundamental duty, which every man owes himself, and is the first steady step towards right and truth, in the whole train of his actions and opinions. This would give one reason to suspect, that such teachers are conscious to themselves of the falsehood or weakness of the tenets they profess, since they will not suffer the grounds whereon they are built, to be examined : whereas, those who seek truth only, and desire to own and propagate nothing else, freely expose their principles to the test ; are pleased to have them examined ; give men leave to reject them if they can ; and if there be any thing weak and unsound in them, are willing to have it detected, that they themselves, as well as others, may not lay any stress upon any received proposition, beyond what the evidence of its truths will warrant and allow.

There is, I know, a great fault among all sorts of people, of principling their children and scholars ; which at last, when looked into, amounts to no more, but making them imbibe their teacher's notions and tenets by an implicit faith, and firmly to adhere to them, whether true or false. What colours may be given to this, or of what use it may be, when practised upon the vulgar, destined to labour, and given up to the service of their bellies, I will not here inquire : but, as to the ingenuous part of mankind, whose condition allows them leisure, and letters, and inquiry after truth—I can see no other right way of principling them, but to take heed, as much as may be, that in their tender years, ideas, that have no natural cohesion, come not to be united

in their heads ; and that this rule be often inculcated to them, to be their guide in the whole course of their lives and studies, viz., that they never suffer any ideas to be joined in their understandings, in any other or stronger combination, than what their own nature and correspondence give them ; and that they often examine those that they find linked together in their minds ; whether this association of ideas be from the visible agreement that is in the ideas themselves, or from the habitual and prevailing custom of the mind, joining them thus together in thinking.

This is for caution against this evil, before it be thoroughly riveted by custom in the understanding ; but he, that would cure it when habit has established it, must nicely observe the very quick and almost imperceptible motions of the mind, in its habitual actions. What I have said in another place, about the change of the ideas of sense into those of judgment, may be proof of this. Let any one, not skilled in painting, be told, when he sees bottles and tobacco-pipes, and other things so painted, as they are in some places shown, that he does not see protuberances, and you will not convince him but by the touch : he will not believe, that by an instantaneous legerdemain of his own thoughts, one idea is substituted for another. How frequent instances may one meet with of this, in the arguings of the learned, who not seldom, in two ideas that they have been accustomed to join in their minds, substitute one for the other ; and, I am apt to think, often without perceiving it themselves ? This, whilst they are under the deceit of it, makes them incapable of conviction ; and they applaud them-

selves as zealous champions for truth, when, indeed, they are contending for error : and the confusion of two different ideas, which a customary connexion of them in their minds hath made to them almost one, fills their heads with false views, and their reasonings with false consequences.

### §. 42. FALLACIES.

Right understanding consists in the discovery and adherence to truth ; and that in the perception of the visible or probable agreement or disagreement of ideas, as they are affirmed and denied one of another. From whence it is evident, that the right use and conduct of the understanding, whose business is purely truth and nothing else, is, that the mind should be kept in a perfect indifference, not inclining to either side, any farther than evidence settles it by knowledge, or the overbalance of probability gives it the turn of assent and belief; but yet it is very hard to meet with any discourse, wherein one may not perceive the author not only maintain, (for that is reasonable and fit,) but inclined and biassed to one side of the question, with marks of a desire that that should be true. If it be asked me, how authors, who have such a bias and lean to it, may be discovered ; I answer, by observing how in their writings or arguings they are often led by their inclinations to change the ideas of the question, either by changing the terms, or by adding and joining others to them ; whereby the ideas under consideration are so varied, as to be more serviceable to their purpose, and to be thereby brought to an easier and nearer agreement, or more visible and remoter disagreement one with another. This is

plain and direct sophistry ; but I am far from thinking, that wherever it is found, it is made use of with design to deceive and mislead the readers. It is visible that men's prejudices and inclinations by this way impose often upon themselves ; and their affection for truth, under their prepossession in favour of one side, is the very thing that leads them from it. Inclination suggests and slides into their discourse favourable terms, which introduce favourable ideas ; till at last, by this means, that is concluded clear and evident, thus dressed up, which, taken in its native state, by making use of none but the precise determined ideas, would find no admittance at all. The putting these glosses on what they affirm, these, as they are thought, handsome, easy, and graceful explications of what they are discoursing on, is so much the character of what is called and esteemed writing well, that it is very hard to think that authors will ever be persuaded to leave what serves so well to propagate their opinions, and procure themselves credit in the world, for a more jejune and dry way of writing, by keeping to the same terms, precisely annexed to the same ideas ; a sour and blunt stiffness, tolerable in mathematicians only, who force their way, and make truth prevail by irresistible demonstration.

But yet, if authors cannot be prevailed with to quit the looser, though more insinuating ways of writing ; if they will not think fit to keep close to truth and instruction, by unvaried terms, and plain unsophisticated arguments ; yet it concerns readers not to be imposed on by fallacies, and the prevailing ways of insinuation. To do this, the surest and

most effectual remedy is, to fix in the mind the clear and distinct ideas of the question, stripped of words; and so, likewise, in the train of argumentation, to take up the author's ideas, neglecting his words, observing how they connect or separate those in the question. He that does this, will be able to cast off all that is superfluous; he will see what is pertinent, what coherent, what is direct to, what slides by the question:—this will readily show him all the foreign ideas in the discourse, and where they were brought in; and though they, perhaps, dazzled the writer, yet he will perceive that they give no light nor strength to his reasonings.

This, though it be the shortest and easiest way of reading books with profit, and keeping one's self from being misled by great names or plausible discourses; yet it being hard and tedious to those who have not accustomed themselves to it, it is not to be expected that every one (amongst those few who really pursue truth) should this way guard his understanding from being imposed on by the wilful, or at least, undesigned sophistry, which creeps into most of the books of argument. They that write against their conviction, or that, next to them, are resolved to maintain the tenets of a party they were engaged in, cannot be supposed to reject any arms that may help to defend their cause; and, therefore, such should be read with the greatest caution. And they, who write for opinions they are sincerely persuaded of, and believe to be true, think they may so far allow themselves to indulge their laudable affection to truth, as to permit their esteem of it to give it the best colours, and set it off with the best ex-

pressions and dress they can ; thereby, to gain it the easiest entrance into the minds of their readers, and fix it deepest there.

One of those, being the state of mind we may justly suppose most writers to be in, it is fit their readers, who apply to them for instruction, should not lay by that caution, which becomes a sincere pursuit of truth ; and should make them always watchful against whatever might conceal or misrepresent it. If they have not the skill of representing to themselves the author's sense by pure ideas, separated from sounds, and thereby divested of the false lights and deceitful ornaments of speech ; this yet they should do ; they should keep the precise question steadily in their minds, carry it along with them through the whole discourse, and suffer not the least alteration in the terms, either by addition, subtraction, or substituting any other. This every one can do, who has a mind to it ; and he that has not a mind to it, it is plain, makes his understanding only the warehouse of other men's lumber : I mean, false and unconcluding reasonings rather than a repository of truth for his own use ; which will prove substantial, and stand him in stead, when he has occasion for it : and whether such an one deals fairly by his own mind, and conducts his own understanding right, I leave to his own understanding to judge.

#### §. 43. FUNDAMENTAL VERITIES.

The mind of man being very narrow, and so slow in making acquaintance with things, and taking in new truths, that no one man is capable, in a much longer life than ours, to know all truths ; it becomes

all prudence, in our search after knowledge, to employ our thoughts about fundamental and material questions; carefully avoiding those that are trifling, and not suffering ourselves to be diverted from our main even purpose, by those that are merely incidental. How much of many young men's time is thrown away in purely logical inquiries I need not mention. This is no better than if a man, who was to be a painter, should spend all his time in examining the threads of the several cloths he is to paint upon, and counting the hairs of each pencil and brush he intends to use, in the laying on of his colours: nay, it is much worse than for a young painter to spend his apprenticeship in such useless niceties; for he, at the end of all his pains to no purpose, finds that it is not painting, nor any help to it, and so is really to no purpose: whereas, men designed for scholars, have often their heads so filled and warmed with disputes on logical questions, that they take those airy useless notions for real and substantial knowledge, and think their understandings so well furnished with science, that they need not look any farther into the nature of things, or descend to the mechanical drudgery of experiment and inquiry. This is so obvious a mismanagement of the understanding, and that in the professed way to knowledge, that it could not be passed by: to which might be joined, abundance of questions, and the way of handling of them in the schools. What faults, in particulars of this kind, every man is, or may be guilty of, would be infinite to enumerate; it suffices to have shown that superficial and slight discoveries and observations, that contain nothing of moment in themselves, nor serve as clews to

lead us into farther knowledge, should not be thought worth our searching after.

There are fundamental truths that lie at the bottom, the basis upon which a great many others rest, and in which they have their consistency. These are teeming truths, rich in store, with which they furnish the mind ; and, like the lights of heaven, are not only beautiful and entertaining in themselves, but give light and evidence to other things, that, without them, could not be seen or known. Such is that admirable discovery of Mr. Newton, that all bodies gravitate to one another ; which may be counted as the basis of natural philosophy ; which, of what use it is to the understanding of the great frame of our solar system, he has, to the astonishment of the learned world, shown ; and how much farther it would guide us in other things, if rightly pursued, is not yet known. Our Saviour's great rule, that “ we should love our neighbour as ourselves,” is such a fundamental truth for the regulating human society, that I think, by that alone, one might, without difficulty, determine all the cases and doubts in social morality. These, and such as these, are the truths we should endeavour to find out, and store our minds with ; which leads me to another thing in the conduct of the understanding, that is no less necessary, viz.

#### §. 44. BOTTOMING.

To accustom ourselves, in any question proposed, to examine and find out upon what it bottoms. Most of the difficulties that come in our way, when well considered and traced, lead us to some proposition, which, known to be true, clears the doubt,

and gives an easy solution of the question ; whilst topical and superficial arguments, of which there is store to be found on both sides, filling the head with variety of thoughts, and the mouth with copious discourse—serve only to amuse the understanding, and entertain company, without coming to the bottom of the question ; the only place of rest and stability for an inquisitive mind, whose tendency is only to truth and knowledge.

For example, if it be demanded whether the grand signor can lawfully take what he will from any of his people ; this question cannot be resolved, without coming to a certainty, whether all men are naturally equal ; for upon that it turns : and that truth, well settled in the understanding, and carried in the mind through the various debates concerning the various rights of men in society, will go a great way in putting an end to them, and showing on which side the truth is.

#### §. 45. TRANSFERRING OF THOUGHTS.

There is scarce any thing more for the improvement of knowledge, for the ease of life, and the despatch of business, than for a man to be able to dispose of his own thoughts ; and there is scarce any thing harder in the whole conduct of the understanding, than to get a full mastery over it. The mind, in a waking man, has always some object that it applies itself to ; which, when we are lazy or unconcerned, we can easily change, and at pleasure transfer our thoughts to another, and from thence to a third, which has no relation to either of the former. Hence, men forwardly conclude, and frequently say, nothing is so free as thought, and it

were well it were so ; but the contrary will be found true in several instances ; and there are many cases wherein there is nothing more resty and ungovernable than our thoughts : they will not be directed what objects to pursue, nor be taken off from those they have once fixed on ; but run away with a man in pursuit of those ideas they have in view, let him do what he can.

I will not here mention again what I have above taken notice of ; how hard it is to get the mind, narrowed by a custom of thirty or forty years' standing, to a scanty collection of obvious and common ideas, to enlarge itself to a more copious stock, and grow into an acquaintance with those that would afford more abundant matter of useful contemplation : it is not of this I am here speaking. The inconvenience I would here represent, and find a remedy for, is the difficulty there is, sometimes, to transfer our minds from one subject to another, in cases where the ideas are equally familiar to us.

Matters, that are recommended to our thoughts by any of our passions, take possession of our minds with a kind of authority, and will not be kept out or dislodged ; but, as if the passion that rules, were, for the time, the sheriff of the place, and came with all the posse ; the understanding is seized and taken with the object it introduces, as if it had a legal right to be alone considered there. There is scarce any body, I think, of so calm a temper, who hath not sometime found this tyranny on his understanding, and suffered under the inconvenience of it. Who is there almost, whose mind, at some time or other, love or anger, fear or grief, has not so fastened to some clog, that it could not turn

itself to any other object ? I call it a clog, for it hangs upon the mind so as to hinder its vigour and activity in the pursuit of other contemplations ; and advances itself a little, or not at all, in the knowledge of the thing which it so closely hugs and constantly pores on. Men thus possessed, are sometimes as if they were so in the worst sense, and lay under the power of enchantment : they see not what passes before their eyes ; hear not the audible discourse of the company ; and, when by any strong application to them, they are roused a little, they are like men brought to themselves from some remote region ; whereas, in truth, they come no farther than their secret cabinet within, where they have been wholly taken up with the puppet, which is for that time appointed for their entertainment. 'The shame that such dumps cause to well-bred people, when it carries them away from the company, where they should bear a part in the conversation, is a sufficient argument, that it is a fault in the conduct of our understanding, not to have that power over it, as to make use of it to those purposes, and on those occasions, wherein we have need of its assistance. The mind should be always free and ready to turn itself to the variety of objects that occur ; and allow them as much consideration, as shall, for that time, be thought fit. To be engrossed so by one object, as not to be prevailed on to leave it for another, that we judge fitter for our contemplation, is to make it of no use to us. Did this state of mind remain always so, every one would, without scruple, give it the name of perfect madness ; and whilst it does last, at whatever intervals it returns, such a rotation of thoughts about the same object no more

carries us forward towards the attainment of knowledge, than getting upon a mill-horse, while he jogs on in his circular track, would carry a man a journey.

I grant, something must be allowed to legitimate passions, and to natural inclinations. Every man, besides occasional affections, has beloved studies, and those the mind will more closely stick to; but, yet, it is best that it should be always at liberty, and under the free disposal of the man, and to act how and upon what he directs. This we should endeavour to obtain, unless we would be content with such a flaw in our understanding, that sometimes we should be, as it were, without it; for it is very little better than so in cases where we cannot make use of it to those purposes we would, and which stand in present need of it.

But before fit remedies can be thought on for this disease, we must know the several causes of it, and thereby regulate the cure, if we will hope to labour with success.

One we have already instanced in, whereof all men that reflect, have so general a knowledge, and so often an experience in themselves, that nobody doubts of it. A prevailing passion so pins down our thoughts to the object and concern of it, that a man, passionately in love, cannot bring himself to think of his ordinary affairs; or a kind mother, drooping under the loss of a child, is not able to bear a part, as she was wont, in the discourse of the company or conversation of her friends.

But though passion be the most obvious and general, yet it is not the only cause that binds up the

understanding, and confines it for the time to one object, from which it will not be taken off.

Besides this, we may often find that the understanding, when it has a while employed itself upon a subject which either chance or some slight accident offered to it, without the interest or recommendation of any passion ; works itself into a warmth, and by degrees, gets into a career, wherein, like a bowl down a hill, it increases its motion by going, and will not be stopped or diverted ; though, when the heat is over, it sees all this earnest application was about a trifle not worth a thought, and all the pains employed about it, lost labour.

There is a third sort, if I mistake not, yet lower than this ; it is a sort of childishness, if I may so say, of the understanding, wherein, during the fit, it plays with and dandles some insignificant puppet to no end, nor with any design at all, and yet cannot easily be got off from it. Thus, some trivial sentence or a scrap of poetry will sometimes get into men's heads, and make such a chiming there, that there is no stilling of it ; no peace to be obtained, nor attention to any thing else ; but this impertinent guest will take up the mind, and possess the thoughts, in spite of all endeavours to get rid of it. Whether every one hath experimented in himself this troublesome intrusion of some frisking ideas, which thus importune the understanding, and hinder it from being better employed, I know not ; but persons of very good parts, and those more than one, I have heard speak and complain of it themselves. The reason I have to make this doubt, is, from what I have known in a case something of kin to this, though much odder ; and that

is, a sort of visions that some people have lying quiet, but perfectly awake, in the dark, or with their eyes shut. It is a great variety of faces, most commonly very odd ones, that appear to them in a train, one after another : so that having had just the sight of the one, it immediately passes away to give place to another, that the same instant succeeds, and has as quick an exit as its leader ; and so they march on in a constant succession ; nor can any one of them, by any endeavour, be stopped or retained beyond the instant of its appearance, but is thrust out by its follower, which will have its turn. Concerning this fantastical phænomenon, I have talked with several people, whereof some have been perfectly acquainted with it, and others have been so wholly strangers to it, that they could hardly be brought to conceive or believe it. I knew a lady of excellent parts, who had got past thirty, without having ever had the least notice of any such thing ; she was so great a stranger to it, that when she heard me and another talking of it, she could scarce forbear thinking we bantered her : but sometime after, drinking a large dose of dilute tea, (as she was ordered by a physician) going to bed, she told us, at next meeting, that she had now experimented what our discourse had much ado to persuade her of. She had seen a great variety of faces in a long train, succeeding one another as we had described ; they were all strangers and intruders, such as she had no acquaintance with before, nor sought after then ; and as they came of themselves, they went too ; none of them stayed a moment, nor could be detained by all the endeavours she could use ; but went on in their solemn procession, just appeared, and then

vanished. This odd phænomenon seems to have a mechanical cause, and to depend upon the matter and motion of the blood or animal spirits.

When the fancy is bound by passion, I know no way to set the mind free and at liberty, to prosecute what thoughts the man would make choice of, but to allay the present passion, or counterbalance it with another; which is an art to be got by study, and acquaintance with the passions.

Those who find themselves apt to be carried away with the spontaneous current of their own thoughts, not excited by any passion or interest, must be very wary and careful, in all the instances of it, to stop it, and never humour their minds in being thus triflingly busy. Men know the value of their corporeal liberty, and therefore, suffer not willingly fetters and chains to be put upon them. To have the mind captivated, is, for the time, certainly the greater evil of the two, and deserves our utmost care and endeavours, to preserve the freedom of our better part: in this case, our pains will not be lost; striving and struggling will prevail, if we constantly, on all such occasions, make use of it. We must never indulge these trivial attentions of thought; as soon as we find the mind makes itself a business of nothing, we should immediately disturb and check it, introduce new and more serious considerations, and not leave till we have beaten it off from the pursuit it was upon. This, at first, if we have let the contrary practice grow to a habit, will, perhaps, be difficult; but constant endeavours will by degrees prevail, and at last make it easy: and when a man is pretty well advanced, and can command his mind off at pleasure from incidental and undesigned pur-

suits, it may not be amiss for him to go on farther, and make attempts upon meditations of greater moment; that, at the last, he may have a full power over his own mind, and be so fully master of his own thoughts, as to be able to transfer them from one subject to another with the same ease that he can lay by any thing he has in his hand, and take something else that he has a mind to in the room of it. This liberty of mind is of great use both in business and study; and he that has got it will have no small advantage of ease and despatch in all that is the chosen and useful employment of his understanding.

The third and last way which I mentioned the mind to be sometimes taken up with, I mean the chiming of some particular words or sentences in the memory, and, as it were, making a noise in the head, and the like—seldom happens but when the mind is lazy, or very loosely and negligently employed. It were better, indeed, to be without such impertinent and useless repetitions; any obvious idea, when it is roving carelessly at a venture, being of more use, and apter to suggest something worth consideration, than the insignificant buzz of purely empty sounds. But since the rousing of the mind, and setting the understanding on work with some degrees of vigour, does, for the most part, presently set it free from these idle companions; it may not be amiss, whenever we find ourselves troubled with them, to make use of so profitable a remedy, that is always at hand.



SOME THOUGHTS  
CONCERNING  
READING AND STUDY  
FOR A GENTLEMAN.



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READING is for the improvement of the understanding.

The improvement of the understanding is for two ends: first, for our own increase of knowledge; secondly, to enable us to deliver and make out that knowledge to others.

The latter of these, if it be not the chief end of study in a gentleman, yet it is at least equal to the other; since the greatest part of his business and usefulness in the world is by the influence of what he says or writes to others.

The extent of our knowledge cannot exceed the extent of our ideas: therefore he who would be universally knowing, must acquaint himself with the objects of all sciences. But this is not necessary to a gentleman, whose proper calling is the service of his country, and so is most properly con-

cerned in moral and political knowledge ; and thus the studies which more immediately belong to his calling, are those which treat of virtues and vices, of civil society, and the arts of government ; and will take in also law and history.

It is enough for a gentlemen to be furnished with the ideas belonging to his calling, which he will find in the books that treat of the matters above-mentioned.

But the next step towards the improvement of his understanding, must be, to observe the connexion of these ideas in the propositions which those books hold forth, and pretend to teach as truths ; which till a man can judge whether they be truths or no, his understanding is but little improved, and he doth but think and talk after the books that he hath read, without having any knowledge thereby. And thus men of much reading are greatly learned, but may be little knowing.

The third and last step, therefore, in improving the understanding, is to find out upon what foundation any proposition advanced bottoms, and to observe the connexion of the intermediate ideas, by which it is joined to that foundation upon which it is erected, or that principle from which it is derived. This, in short, is right reasoning ; and by this way alone true knowledge is to be got by reading and studying.

When a man, by use, hath got this faculty of observing and judging of the reasoning and coherence of what he reads, and how it proves what it pretends to teach ; he is then, and not till then, in the right way of improving his understanding, and enlarging his knowledge by reading.

But that, as I have said, being not all that a gentleman should aim at in reading, he should farther take care to improve himself in the art also of speaking, that so he may be able to make the best use of what he knows.

The art of speaking well consists chiefly in two things; *viz.* perspicuity and right reasoning.

Perspicuity consists in the using of proper terms for the ideas or thoughts which he would have pass from his own mind into that of another man. It is this that gives them an easy entrance, and it is with delight that men hearken to those whom they easily understand; whereas what is obscurely said, dying as it is spoken, is usually not only lost, but creates a prejudice in the hearer, as if he that spoke knew not what he said, or was afraid to have it understood.

The way to obtain this, is to read such books as are allowed to be writ with the greatest clearness and propriety, in the language that a man uses. An author excellent in this faculty, as well as several others, is Dr. Tillotson, late archbishop of Canterbury, in all that is published of his. I have chosen rather to propose this pattern, for the attainment of the art of speaking clearly, than those who give rules about it; since we are more apt to learn by example than by direction. But if any one hath a mind to consult the masters in the art of speaking and writing, he may find in Tully "De Oratore," and another treatise of his called "Orator," and in Quintilian's Institutions, and Boileau's "Traité du Sublime,"\* instructions concerning this, and the other parts of speaking well.

\* That treatise is a translation from Longinus.

Besides perspicuity, there must be also right reasoning, without which, perspicuity serves but to expose the speaker: and for the attaining of this I should propose the constant reading of Chillingworth, who, by his example, will teach both perspicuity and the way of right reasoning better than any book that I know, and therefore will deserve to be read upon that account over and over again, not to say any thing of his argument.

Besides these books in English, Tully, Terence, Virgil, Livy, and Caesar's Commentaries, may be read to form one's mind to a relish of a right way of speaking and writing.

The books I have hitherto mentioned have been in order only to writing and speaking well; not but that they will deserve to be read upon other accounts.

The study of morality, I have above mentioned as that that becomes a gentleman; not barely as a man, but in order to his business as a gentleman. Of this there are books enough writ both by ancient and modern philosophers; but the morality of the Gospel doth so exceed them all, that, to give a man a full knowledge of true morality, I shall send him to no other book but the New Testament. But if he hath a mind to see how far the heathen world carried that science, and whereon they bottomed their ethics, he will be delightfully and profitably entertained in Tully's 'Treatises "De Officiis."

Politics contain two parts, very different the one from the other: the one containing the original of societies, and the rise and extent of political power; the other, the art of governing men in society.

The first of these hath been so bandied amongst us for these sixty years backward, that one can hardly miss books of this kind. Those which, I think, are most talked of in English, are the first book of Mr. Hooker's "Ecclesiastical Polity," and Mr. Algernon Sydney's "Discourses concerning Government." The latter of these I never read. Let me here add, "Two Treatises of Government," printed in 1690; and a Treatise of "Civil Polity," printed this year. To these one may add, Puffendorf "De Officio Hominis et Civis," and "De Jure Naturali et Gentium;" which last is the best book of that kind.

As to the other part of politics, which concerns the art of government; that, I think, is best to be learned by experience and history, especially that of a man's own country: and, therefore, I think an English gentleman should be well versed in the history of England, taking his rise as far back as there are any records of it; joining with it the laws that were made in the several ages, as he goes along in his history; that he may observe from thence the several turns of state, and how they have been produced. In Mr. Tyrrel's History of England, he will find all along those several authors who have treated of our affairs, and who he may have recourse to, concerning any point which either his curiosity or judgment shall lead him to inquire into.

With the history, he may also do well to read the ancient lawyers; such as Bracton, "Fleta," Heningham, "Mirroure of Justice," my lord Coke's "Second Institutes," and the "Modus tenendi Parlia-

mentum," and others of that kind, which he may find quoted in the late controversies between Mr. Petit, Mr. Tyrrel, Mr. Atwood, &c., with Dr. Brady ; as also, I suppose, in Sedler's treatise of " Rights of the Kingdom, and Customs of our Ancestors," whereof the first edition is the best ; wherein he will find the ancient constitution of the government of England.

There are two volumes of " State Tracts" printed since the revolution, in which there are many things relating to the government of England.

As for general history, Sir Walter Raleigh and Dr. Howell are books to be had. He who hath a mind to launch farther into that ocean, may consult Whear's " Methodus legendi Historias," of the last edition ; which will direct him to the authors he is to read, and the method wherein he is to read them.

To the reading of history, chronology and geography are absolutely necessary.

In geography, we have two general ones in English, Heylin and Moll : which is the best of them, I know not ; having not been much conversant in either of them : but the last I should think to be of most use ; because of the new discoveries that are made every day, tending to the perfection of that science : though, I believe, that the countries which Heylin mentions, are better treated of by him, bating what new discoveries since his time have added.

These two books contain geography in general ; but whether an English gentleman would think it worth his time to bestow much pains upon that,

(though without it he cannot well understand a Gazette) it is certain, he cannot well be without Camden's "Britannia," which is much enlarged in the last English edition. A good collection of maps is also necessary.

To geography, books of travels may be added. In that kind, the collections made by our countrymen, Hackluyt and Purchas, are very good. There is also, a very good collection made by Thevenot, in folio, in French; and by Ramuzion, in Italian; whether translated into English or no, I know not. There are also several good books of travels of Englishmen published, as Sandys, Roe, Brown, Gage, and Dampier.

There are also several voyages in French, which are very good; as Pyrard, Bergeron, Sagard, Bernier, &c.; whether all of them are translated into English, I know not.

There is at present a very good "Collection of Voyages and Travels," never before in English, and such as are out of print, now printing by Mr. Churchill.

There are, besides these, a vast number of other travels; a sort of books that have a very good mixture of delight and usefulness. To set them down all, would take up too much time and room: those I have mentioned are enough to begin with.

As to chronology, I think Helvicus the best for common use; which is not a book to be read, but to lie by, and be consulted upon occasion. He that hath a mind to look farther into chronology, may get Tallent's "Tables," and Strauchius's "Breviarium Temporum," and may to those add

Scaliger "De Emendatione Temporum," and Petavius, if he hath a mind to engage deeper in that study.

Those who are accounted to have writ best particular parts of our English history, are Bacon, of Henry VII. and Herbert, of Henry VIII. Daniel, also, is commended ; and Burnet's "History of the Reformation."

Mariana's "History of Spain," and Thuanus's "History of his own Time," and Philip de Comines, are of great and deserved reputation.

There are also several French and English memoirs and collections ; such as La Rochefoucault, Melvil, Rushworth, &c., which give a great light to those who have a mind to look into what hath passed in Europe this last age.

To fit a gentleman for the conduct of himself, whether as a private man, or as interested in the government of his country, nothing can be more necessary than the knowledge of men ; which, though it be to be had chiefly from experience, and, next to that, from a judicious reading of history ; yet there are books that of purpose treat of human nature, which help to give an insight into it : such are those treating of the passions, and how they are moved ; whereof Aristotle, in his second book of Rhetoric, hath admirably discoursed, and that in a little compass. I think this Rhetoric is translated into English ; if not, it may be had in Greek and Latin together.

La Bruyere's "Characters" are also an admirable piece of painting ; I think it is also translated out of French into English.

Satirical writings also, such as Juvenal and Persius, and, above all, Horace, though they paint the deformities of men, yet they thereby teach us to know them.

There is another use of reading, which is for diversion and delight : such are poetical writings, especially dramatic, if they be free from profaneness, obscenity, and what corrupts good manners ; for such pitch should not be handled.

Of all the books of fiction, I know none that equals “Cervantes’s History of Don Quixotte” in usefulness, pleasure, and a constant decorum : and, indeed, no writings can be pleasant, which have not nature at the bottom, and are not drawn after her copy.

There is another sort of books, which I had almost forgot, with which a gentleman’s study ought to be well furnished, *viz.* dictionaries of all kinds. For the Latin tongue, Littleton, Cooper, Calepin, and Robert Stephens’s “Thesaurus Linguae Latinae,” and “Vossii Etymologicum Linguae Latinae.” Skinner’s “Lexicon Etymologicum” is an excellent one of that kind, for the English tongue. Cowell’s “Interpreter” is useful for the law terms. Spelman’s “Glossary” is a very learned and useful book : and Selden’s “Titles of Honour,” a gentleman should not be without. Baudrand hath a very good “Geographical Dictionary :” and there are several historical ones which are of use, as Lloyd’s, Hoffinan’s, Moreri’s ; and Bayle’s incomparable Dictionary is something of the same kind. He that hath occasion to look into books written in Latin, since the decay of the Roman empire and the

purity of the Latin tongue, cannot be well without Du Cange's "Glossarium mediæ et infimæ Latinitatis."

Among the books above set down, I mentioned Vossius's "Etymologicum Linguæ Latinæ :" all his works are lately printed in Holland in six tomes. They are fit books for a gentleman's library, containing very learned discourses concerning all the sciences.

ELEMENTS  
OF  
NATURAL PHILOSOPHY.



E L E M E N T S  
O F  
N A T U R A L P H I L O S O P H Y .

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I. O F M A T T E R A N D M O T I O N .

MATTER is an extended solid substance ; which being comprehended under distinct surfaces, makes so many particular distinct bodies.

Motion is so well known by the sight and touch, that to use words to give a clear idea of it, would be in vain.

Matter, or body, is indifferent to motion or rest. There is as much force required to put a body, which is in motion, at rest ; as there is to set a body, which is at rest, into motion.

No parcel of matter can give itself either motion or rest ; and, therefore, a body at rest will remain so eternally, except some external cause puts it in motion ; and a body in motion will move eternally, unless some external cause stops it.

A body in motion will always move on in a straight line, unless it be turned out of it by some external

cause; because a body can no more alter the determination of its motion, than it can begin it, alter or stop its motion itself.

The swiftness of motion is measured by distance of place and length of time wherein it is performed. For instance, if A and B, bodies of equal or different bigness, move each of them an inch in the same time, their motions are equally swift; but if A moves two inches in the time whilst B is moving one inch, the motion of A is twice as swift as that of B.

The quantity of motion is measured by the swiftness of the motion and the quantity of the matter moved, taken together. For instance, if A, a body equal to B, moves as swift as B; then it hath an equal quantity of motion: if A hath twice as much matter as B, and moves equally as swift, it hath double the quantity of motion; and so in proportion.

It appears, as far as human observation reaches, to be a settled law of nature, that all bodies have a tendency, attraction, or gravitation towards one another.

The same force, applied to two different bodies, produces always the same quantity of motion in each of them. For instance, let a boat, which with its lading is one ton, be tied at a distance to another vessel, which with its lading is twenty-six tons; if the rope that ties them together be pulled, either in the less or bigger of these vessels, the less of the two, in their approach one to another, will move twenty-six feet, while the other moves but one foot.

Wherefore, the quantity of matter in the earth

being twenty-six times more than in the moon ; the motion in the moon towards the earth, by the common force of attraction, by which they are impelled towards one another, will be twenty-six times as fast as in the earth ; that is, the moon will move twenty-six miles towards the earth, for every mile the earth moves towards the moon.

Hence it is, that, in this natural tendency of bodies towards one another, that in the lesser is considered as gravitation, and that in the bigger as attraction ; because the motion of the lesser body (by reason of its much greater swiftness) is alone taken notice of.

This attraction is the strongest, the nearer the attracting bodies are to each other ; and, in different distances of the same bodies, is reciprocally in the duplicate proportion of those distances. For instance, if two bodies at a given distance attract each other with a certain force ; at half the distance, they will attract each other with four times that force ; at one third of the distance, with nine times that force ; and so on.

Two bodies at a distance will put one another into motion by the force of attraction ; which is inexplicable by us, though made evident to us by experience, and so to be taken as a principle in natural philosophy.

Supposing then the earth the sole body in the universe, and at rest ; if God should create the moon, at the same distance that it is now from the earth ; the earth and the moon would presently begin to move one towards another in a straight line, by this motion of attraction or gravitation,

If a body, that, by the attraction of another, would move in a straight line towards it, receives a new motion any ways oblique to the first, it will no longer move in a straight line, according to either of those directions; but in a curve that will partake of both: and this curve will differ, according to the nature and quantity of the forces that concurred to produce it; as, for instance, in many cases it will be such a curve as ends where it began, or recurs into itself; that is, makes up a circle, or an ellipsis or oval, very little differing from a circle.

## II. OF THE UNIVERSE.

To any one, who looks about him in the world, there are obvious several distinct masses of matter, separate from one another; some whereof have discernible motions: these are the sun, the fixed stars, the comets, and the planets, amongst which, this earth which we inhabit, is one: all these are visible to our naked eyes.

Besides these, telescopes have discovered several fixed stars, invisible to the naked eye, and several other bodies moving about some of the planets; all which were invisible and unknown before the use of perspective glasses were found.

The vast distances between these great bodies, are called intermundane spaces; in which, though there may be some fluid matter, yet it is so thin and subtle, and there is so little of that, in respect of the great masses that move in those spaces, that it is as much as nothing.

These masses of matter are either luminous, or opaque or dark.

Luminous bodies are such as give light of themselves ; and such are the sun and fixed stars.

Dark, or opaque bodies, are such as emit no light of themselves, though they are capable of reflecting of it, when it is cast upon them from other bodies ; and such are the planets.

There are some opaque bodies, as for instance, the comets, which, besides the light that they may have from the sun, seem to shine with a light that is nothing else but an accension, which they receive from the sun, in their near approaches to it, in their respective revolutions.

The fixed stars are called fixed, because they always keep the same distance one from another.

The sun, at the same distance from us that the fixed stars are, would have the appearance of one of the fixed stars.

### III. OF OUR SOLAR SYSTEM.

OUR solar system consists of the sun, and the planets and comets moving about it.

The planets are bodies, which appear to us like stars ; not that they are luminous bodies, that is, have light in themselves ; but they shine by reflecting the light of the sun.

They are called planets from a Greek word, which signifies wandering ; because they change their places, and do not always keep the same distance with one another, nor with the fixed stars, as the fixed stars do.

The planets are either primary or secondary.

There are six primary planets, *viz.* Mercury, Venus, the Earth, Mars, Jupiter, and Saturn.

All these move round the sun, which is, as it were, the centre of their motions.

The secondary planets move round about other planets. Besides the moon, which moves about the Earth; four moons move about Jupiter, and five about Saturn, which are called their satellites.

The middle distances of the primary planets from the sun are as follows:

Mercury	Is	32,000,000	Statute miles, each 5280 English and 4943 French feet.
Venus	distant	59,000,000	
The Earth	from	81,000,000	
Mars	the	123,000,000	
Jupiter	sun's	424,000,000	
Saturn	centre,	777,000,000	

The orbits of the planets, and their respective distances from the sun and from one another, together with the orbit of a comet, may be seen in the figure of the solar system.

The periodical times of each planet's revolution about the sun are as follows:

		Y.	D.	H.	M.
Mercury		0	88	0	0
Venus		0	225	0	0
The Earth	Revolves about the	0	365	5	49
Mars	sun in	1	322	0	0
Jupiter	the space	11	319	0	0
Saturn	of	29	138	0	0

The planets move round about the sun from west to east in the zodiac; or, to speak plainer, are always found amongst some of the stars of those constellations, which make the twelve signs of the zodiac.

The motion of the planets about the sun is not perfectly circular, but rather elliptical.

The reason of their motions in curve lines, is the attraction of the sun, or their gravitations towards the sun, (call it which you please) and an oblique or side-long impulse or motion.

These two motions or tendencies ; the one always endeavouring to carry them in a straight line from the circle they move in, and the other endeavouring to draw them in a straight line to the sun, makes that curve line they revolve in.

The motion of the comets about the sun is in a very long slender oval ; whereof one of the focuses is the centre of the sun, and the other very much beyond the sphere of Saturn.

The moon moves about the earth, as the earth doth about the sun : so that it hath the centre of its motion in the earth, as the earth hath the centre of its revolution in the sun, about which it moves.

The moon makes its synodical motion about the earth, in 29 days, 12 hours, and about 44 minutes.

It is full moon, when, the earth being between the sun and the moon, we see all the enlightened part of the moon ; new moon, when, the moon being between us and the sun, its enlightened part is turned from us ; and half moon, when, the moon being in the quadratures, as the astronomers call it, we see but half the enlightened part.

An eclipse of the moon is, when the earth, being between the sun and the moon, hinders the light of the sun from falling upon, and being reflected by, the moon. If the light of the sun is kept off from the

whole body of the moon, it is a total eclipse ; if from a part only, it is a partial one.

An eclipse of the sun is, when the moon, being between the sun and the earth, hinders the light of the sun from coming to us. If the moon hides from us the whole body of the sun, it is a total eclipse ; if not, a partial one.

Our solar system is distant from the fixed stars 20,000,000,000 semi-diameters of the earth ; or, as Mr. Huygens expresses the distance, in his *Cosmotheoros*\*, the first stars are so remote from the earth, that, if a cannon bullet should come from one of the fixed stars with as swift a motion as it hath when it is shot out of the mouth of a cannon, it would be 700,000 years in coming to the earth.

This vast distance so much abates the attraction to those remote bodies, that its operation upon those of our system is not at all sensible, nor would draw away or hinder the return of any of our solar comets, though some of them should go so far from the sun, as not to make the revolution about it in less than 1000 years.

It is more suitable to the wisdom, power, and greatness of God, to think that the fixed stars are all of them suns, with systems of inhabitable planets moving about them, to whose inhabitants he displays the marks of his goodness as well as to us ; rather than to imagine that those very remote bodies, so little useful to us, were made only for our sake.

\* Christiani Huygenii ΚΟΣΜΟΘΕΩΡΟΣ, sive de Terris Cœlestibus earumque Ornatu, Conjecturæ, &c. p. m. 137.

## IV. OF THE EARTH, CONSIDERED AS A PLANET.

THE earth, by its revolution about the sun in 365 days, 5 hours, 49 minutes, makes that space of time we call a year.

The line, which the centre of the earth describes in its annual revolution about the sun, is called *ecliptic*.

The annual motion of the earth about the sun, is in the order of the signs of the zodiac; that is, speaking vulgarly, from west to east.

Besides this annual revolution of the earth about the sun in the ecliptic, the earth turns round upon its own axis in 24 hours.

The turning of the earth upon its own axis every 24 hours, whilst it moves round the sun in a year, we may conceive by the running of a bowl on a bowling-green; in which not only the centre of the bowl hath a progressive motion on the green, but the bowl, in its going forward from one part of the green to another, turns round about its own axis.

The turning of the earth on its own axis makes the difference of day and night; it being day in those parts of the earth which are turned towards the sun, and night in those parts which are in the shade, or turned from the sun.

The annual revolution of the earth in the ecliptic is the cause of the different seasons, and of the several lengths of days and nights, in every part of the world, in the course of the year.

The reason of it is the earth's going round its own axis in the ecliptic, but at the same time keep-

ing every where its axis equally inclined to the plane of the ecliptic, and parallel to itself: for the plane of the ecliptic inclining to the plane of the equator, 23 degrees and a half, makes that the earth, moving round in the ecliptic, hath sometimes one of its poles, and sometimes the other, nearer the sun.

If the diameter of the sun be to the diameter of the earth as 48 to 1, as by some it is accounted, then the disk of the sun, speaking “ *numero rotundo*,” is above 2000 times bigger than the disk of the earth, and the globe of the sun is above 100,000 times bigger than the globe of the earth.

The distance of the earth's orbit from the sun is above 200,000 semi-diameters of the earth.

If a cannon bullet should come from the sun with the same velocity it hath when it is shot out of the mouth of a cannon, it would be 25 years in coming to the earth.

#### V. OF THE AIR AND ATMOSPHERE.

WE have already considered the earth as a planet, or one of the great masses of matter moving about the sun: we shall now consider it as it is made up of its several parts, abstractedly from its diurnal and annual motions.

The exterior part of this our habitable world is the air or atmosphere; a light thin fluid, or springy body, that encompasses the solid earth on all sides.

The height of the atmosphere above the surface of the solid earth, is not certainly known; but that it doth reach but to a very small part of the

distance betwixt the earth and the moon, may be concluded from the refraction of the rays coming from the sun, moon, and other luminous bodies.

Though considering that the air we are in being near 1000 times lighter than water, and that the higher it is the less it is compressed by the superior incumbent air, and so consequently, being a springy body, the thinner it is; and considering also that a pillar of air of any diameter is equal in weight to a pillar of quicksilver of the same diameter of between 29 and 30 inches height—we may infer that the top of the atmosphere is not very near the surface of the solid earth.

It may be concluded, that the utmost extent of the atmosphere reaches upwards, from the surface of the solid earth that we walk on, to a good distance above us; first, if we consider that a column of air of any given diameter is equiponderant to a column of quicksilver of between 29 and 30 inches height. Now quicksilver being near 14 times heavier than water, if air was as heavy as water, the atmosphere would be about 14 times higher than the column of quicksilver, *i. e.* about 35 feet.

Secondly, if we consider that air is 1000 times lighter than water; then a pillar of air, equal in weight to a pillar of quicksilver of 30 inches high, will be 35,000 feet; whereby we come to know that the air or atmosphere is 35,000 feet, *i.e.* near seven miles high.

Thirdly, if we consider that the air is a springy body, and that that which is nearest the earth is compressed by the weight of all the atmosphere that is above it, and rests perpendicularly upon it; we shall find that the air here, near the surface of

the earth, is much denser and thicker than it is in the upper parts. For example, if upon a fleece of wool you lay another, the under one will be a little compressed by the weight of that which lies upon it; and so both of them by a third, and so on; so that, if 10,000 were piled one upon another, the under one would, by the weight of all the rest, be very much compressed, and all the parts of it be brought abundantly closer together than when there was no other upon it, and the next to that a little less compressed, the third a little less than the second, and so on till it came to the uppermost, which would be in its full expansion, and not compressed at all. Just so it is in the air; the higher you go in it, the less it is compressed, and consequently the less dense it is; and so the upper part being exceedingly thinner than the lower part, which we breathe in (which is that that is 1000 times lighter than water,) the top of the atmosphere is probably much higher than the distance above assigned.

That the air near the surface of the earth will mightily expand itself when the pressure of the incumbent atmosphere is taken off, may be abundantly seen in the experiments made by Mr. Boyle in his pneumatic engine. In his "Physico-mechanical Experiments," concerning the air, he declares it probable that the atmosphere may be several hundred miles high; which is easy to be admitted, when we consider, what he proves in another part of the same treatise, *viz.* that the air here about the surface of the earth, when the pressure is taken from it, will dilate itself about 152 times.

The atmosphere is the scene of the meteors, and

therein is collected the matter of rain, hail, snow, thunder, and lightning, and a great many other things observable in the air.

#### VI. OF METEORS IN GENERAL.

BESIDES the springy particles of pure air, the atmosphere is made up of several streams or minute particles of several sorts, rising from the earth and the waters, and floating in the air, which is a fluid body; and, though much finer and thinner, may be considered, in respect of its fluidity, to be like water, and so capable, like other liquors, of having heterogeneous particles floating in it.

The most remarkable of them are, first, the particles of water raised into the atmosphere, chiefly by the heat of the sun, out of the sun and other waters, and the surface of the earth; from whence it falls in dew, rain, hail, and snow.

Out of the vapours rising from moisture the clouds are principally made.

Clouds do not consist wholly of watery parts; for, besides the aqueous vapours that are raised into the air, there are also sulphureous and saline particles that are raised up, and in the clouds mixed with the aqueous particles, the effects whereof are sometimes very sensible; as particularly in lightning and thunder, when the sulphureous and nitrous particles firing, break out with that violence of light and noise which is observable in thunder, and very much resembles gunpowder.

That there are nitrous particles raised into the air, is evident from the nourishment which rain gives to vegetables more than any other water; and also by the collection of nitre or saltpetre in

heaps of earth, out of which it has been extracted, if they be exposed to the air, so as to be kept from rain ; not to mention other efforts, wherein the nitrous spirit in the air shows itself.

Clouds are the greatest and most considerable of all the meteors, as furnishing matter and plenty to the earth. They consist of very small drops of water, and are elevated a good distance above the surface of the earth : for a cloud is nothing but a mist flying high in the air, as a mist is nothing but a cloud here below.

How vapours are raised into the air in invisible streams, by the heat of the sun, out of the sea and moist parts of the earth, is easily understood ; and there is a visible instance of it in ordinary distillations : but how these streams are collected into drops, which bring back the water again, is not so easy to determine.

To those that will carefully observe, perhaps, it will appear probable, that it is by that which the chemists call precipitation ; to which it answers in all its parts.

The air may be looked on as a clear and pellucid menstruum, in which the insensible particles of dissolved matter float up and down, without being discerned, or troubling the pellucidity of the air ; when on a sudden, as if it were by a precipitation, they gather into the very small but visible misty drops that make clouds.

This may be observed sometimes in a very clear sky, when, there not appearing any cloud, or any thing opaque, in the whole horizon, one may see on a sudden clouds gather, and all the hemisphere overcast ; which cannot be from the rising of the

new aqueous vapours at that time, but from the precipitation of the moisture, that in invisible particles floated in the air, into very small, but very visible drops, which, by a like cause, being united into greater drops, they become too heavy to be sustained in the air, and so fall down in rain.

Hail seems to be the drops of rain frozen in their falling.

Snow is the small particles of water frozen before they unite into drops.

The regular figures, which branch out in flakes of snow, seem to show that there are some particles of salt mixed with the water, which makes them unite in certain angles.

The rainbow is reckoned one of the most remarkable meteors, though really it be no meteor at all; but the reflection of the sun-beams from the smallest drops of a cloud or mist, which are placed in a certain angle made by the concurrence of two lines, one drawn from the sun, and the other from the eye to these little drops in the cloud, which reflect the sun-beams; so that two people, looking upon a rainbow at the same time, do not see exactly the same rainbow.

## VII. OF SPRINGS, RIVERS, AND THE SEA.

PART of the water that falls down from the clouds runs away upon the surface of the earth into channels, which convey it to the sea; and part of it is imbibed in the spongy shell of the earth, from whence, sinking lower by degrees, it falls down into subterranean channels, and so, under ground, passes into the sea; or else, meeting with beds of rock or clay, it is hindered from sinking lower, and

so breaks out in springs, which are most commonly in the sides, or at the bottom of hilly ground.

Springs make little rivulets; those united make brooks; and those coming together make rivers, which empty themselves into the sea.

The sea is a great collection of waters in the deep valleys of the earth. If the earth were all plain, and had not those deep hollows, the earth would be all covered with water; because the water being lighter than the earth, would be above the earth, as the air is above the water.

The most remarkable thing in the sea is that motion of the water called tides. It is a rising and falling of the water of the sea. The cause of this is the attraction of the moon, whereby the part of the water in the great ocean, which is nearest the moon, being most strongly attracted, is raised higher than the rest; and the part opposite to it on the contrary side, being least attracted, is also higher than the rest: and these two opposite rises of the surface of the water in the great ocean, following the motion of the moon from east to west, and striking against the large coasts of the continents that lie in its way; from thence rebounds back again, and so makes floods and ebbs in narrow seas, and rivers remote from the great ocean. Herein we also see the reason of the times of the tides, and why they so constantly follow the course of the moon.

#### VIII. OF SEVERAL SORTS OF EARTH, STONES, METALS, MINERALS, AND OTHER FOSSILS.

THIS solid globe we live upon is called the earth, though it contains in it a great variety of bodies,

several whereof are not properly earth ; which word, taken in a more limited sense, signifies such parts of this globe as are capable, being exposed to the air, to give rooting and nourishment to plants, so that they may stand and grow in it. With such earth as this, the greatest part of the surface of this globe is covered ; and it is, as it were, the storehouse, from whence all the living creatures of our world have originally their provisions ; for from thence all the plants have their sustenance, and some few animals, and from these all the other animals.

Of earth, taken in this sense, there are several sorts, *v.g.* common mould or garden earth, clay of several kinds, sandy soils.

Besides these, there is medicinal earth ; as that which is called terra lemmia, bolus armena, and divers others.

After the several earths, we may consider the parts of the surface of this globe, which is barren ; and such, for the most, are sand, gravel, chalk, and rocks, which produce nothing, where they have no earth mixed amongst them. Barren sands are of divers kinds, and consist of several little irregular stones without any earth ; and of such there are great deserts to be seen in several parts of the world.

Besides these, which are most remarkable on the surface of the earth ; there are found, deeper in this globe, many other bodies, which, because we discover by digging into the bowels of the earth, are called by one common name, fossils ; under which, are comprehended metals, minerals or half metals,

stones of divers kinds, and sundry bodies that have the texture between earth and stones.

To begin with those fossils which come nearest the earth ; under this head we may reckon the several sorts of ochre, chalk, that which they call black-lead, and other bodies of this kind, which are harder than earth, but have not the consistency and hardness of perfect stone.

Next to these, may be considered stones of all sorts ; where there is almost an infinite variety. Some of the most remarkable, either for beauty or use, are these : marble of all kinds, porphyry, granite, free-stone, &c. flints, agates, cornelians, pebbles ; under which kind come the precious stones, which are but pebbles of an excessive hardness, and when they are cut and polished, they have an extraordinary lustre : the most noted and esteemed are diamonds, rubies, amethysts, emeralds, topazes, opals.

Besides these, we must not omit those, which, though of not so much beauty, yet are of greater use ; *viz.* loadstones, whetstones of all kinds, limestones, calamine or lapis calaminaris, and abundance of others.

Besides these, there are found in the earth several sorts of salts ; as eating or common salt, vitriol, sal gemma, and others.

The minerals or semi-metals, that are dug out of the bowels of the earth, are antimony, cinnabar, zinc, &c. to which may be added brimstone.

But the bodies of most use, that are sought for out of the depths of the earth, are the metals, which are distinguished from other bodies by their

weight, fusibility, and malleableness ; of which, there are these sorts ; gold, silver, copper, tin, lead, and, the most valuable of them all, iron ; to which one may join that anomalous body, quicksilver or mercury.

He that desires to be more particularly informed concerning the qualities and properties of these subterraneous bodies, may consult natural historians and chemists.

What lies deeper towards the centre of the earth we know not, but a very little beneath the surface of this globe ; and whatever we fetch from under ground is only what is lodged in the shell of the earth.

All stones, metals, and minerals, are real vegetables ; that is, grow organically from proper seeds, as well as plants.

#### IX. OF VEGETABLES, OR PLANTS.

NEXT to the earth itself, we may consider those that are maintained on its surface, which, though they are fastened to it, yet are very distinct from it ; and those are the whole tribe of vegetables or plants : these may be divided into three sorts, herbs, shrubs, and trees.

Herbs are those plants whose stalks are soft, and have nothing woody in them, as grass, sowthistle, and hemlock. Shrubs and trees have all wood in them, but with this difference ; that shrubs grow not to the height of trees, and usually spread into branches near the surface of the earth ; whereas trees generally shoot up in one great stem or body, and then, at a good distance from the earth, spread

into branches ; thus, gooseberries and currants are shrubs, oaks and cherries are trees.

In plants, the most considerable parts are these ; the root, the stalk, the leaves, the flower, and the seed. There are very few of them that have not all these parts, though some there are that have no stalk, others that have no leaves, and others that have no flowers : but without seed or root, I think there are none.

In vegetables, there are two things chiefly to be considered ; their nourishment and propagation.

Their nourishment is thus : the small and tender fibres of the roots being spread under ground, imbibe, from the moist earth, juice fit for their nourishment ; this is conveyed by the stalk up into the branches and leaves, through little, and, in some plants, imperceptible tubes, and from thence, by the bark, returns again to the root ; so that there is in vegetables, as well as animals, a circulation of the vital liquor. By what impulse it is moved, is somewhat hard to discover : it seems to be from the difference of day and night, and other changes in the heat of the air ; for the heat dilating, and the cold contracting those little tubes, supposing there to be valves in them, it is easy to be conceived how the circulation is performed in plants, where it is not required to be so rapid and quick as in animals.

Nature has provided for the propagation of the species of plants several ways : the first and general is by seed. Besides this, some plants are raised from any part of the root set in the ground ; others by new roots that are propagated from the old one, as in tulips ; others by offsets ; and in others, the branches set in the ground will take root and grow ; and last

of all, grafting and inoculation, in certain sorts, are known ways of propagation. All these ways of increasing plants make one good part of the skill of gardening, and from the books of gardeners may be best learned.

#### X. OF ANIMALS.

THERE is another sort of creatures belonging to this our earth, rather as inhabitants than parts of it. They differ in this from plants; that they are not fixed to any one place, but have a freedom of motion up and down, and besides, have sense to guide them in their motions.

Man and brute divide all the animals of this our globe.

Brutes may be considered as either aerial, terrestrial, aquatic, or amphibious. I call those aerial, which have wings wherewith they can support themselves in the air: terrestrial are those whose only place of rest is upon the earth: aquatic are those whose constant abode is upon the water. Those are called amphibious which live freely in the air upon the earth, and yet are observed to live long upon the water, as if they were natural inhabitants of that element; though it be worth the examination to know whether any of those creatures that live at their ease, and by choice, a good while or at any time upon the earth, can live a long time together perfectly under water.

Aerial animals may be subdivided into birds and flies.

Fishes, which are the chief part of aquatic animals, may be divided into shell-fishes, scaly

fishes, and those that have neither apparent scales nor shells.

And the terrestrial animals may be divided into quadrupeds or beasts ; reptiles, which have many feet ; and serpents, which have no feet at all.

Insects which, in their several changes, belong to several of the before-mentioned divisions, may be considered together as one great tribe of animals. They are called insects, from a separation in the middle of their bodies, whereby they are, as it were, cut into two parts, which are joined together by a small ligature ; as we see in wasps, common flies, and the like.

Besides all these, there are some animals that are not perfectly of these kinds, but placed, as it were, in the middle betwixt two of them, by something of both ; as bats, which have something of beasts and birds in them.

Some reptiles of the earth, and some of aquatics, want one or more of the senses, which are in perfecter animals ; as worms, oysters, cockles, &c.

Animals are nourished by food, taken in at the mouth, digested in the stomach, and thence, by fit vessels, distributed over the whole body, as is described in books of anatomy.

The greatest part of animals have five senses, *viz.* seeing, hearing, smelling, tasting, and feeling. These, and the way of nourishment of animals, we shall more particularly consider, because they are common to man with beasts.

The way of nourishment of animals, particularly of man, is by food taken in at the mouth, which being chewed there, is broken and mixed with the

saliva, and thereby prepared for an easier and better digestion in the stomach.

When the stomach has performed its office upon the food, it protrudes it into the guts, by whose peristaltic motion it is gently conveyed along through the guts, and, as it passes the chyle, which is the nutritive part, is separated from the excrementitious, by the lacteal veins; and from thence conveyed into the blood, with which it circulates till itself be concocted into blood. The blood being by the vena cava brought into the right ventricle of the heart, by the contraction of that muscle, is driven through the arteria pulmonaris into the lungs, where the constantly inspired air mixing with it, enlivens it; and from thence being conveyed by the vena pulmonaris into the left ventricle of the heart, the contraction of the heart forces it out, and, by the arteries, distributes it into all parts of the body; from whence it returns by the veins into the right ventricle of the heart, to take the same course again. This is called the circulation of the blood; by which life and heat are communicated to every part of the body.

In the circulation of the blood, a good part of it goes up into the head, and, by the brains, are separated from it, or made out of it, the animal spirits, which, by the nerves, impart sense and motion to all parts of the body.

The instruments of motion are the muscles; the fibres whereof contracting themselves, move the several parts of the body.

This contraction of the muscles is, in some of them, by the direction of the mind, and in some of them without it, which is the difference be-

tween voluntary and involuntary motions in the body.

## XI. OF THE FIVE SENSES.

### *Of Seeing.*

THE organ of seeing is the eye, consisting of variety of parts wonderfully contrived for the admitting and refracting the rays of light; so that those that come from the same point of the object, and fall upon different parts of the pupil, are brought to meet again at the bottom of the eye, whereby the whole object is painted on the retina that is spread there.

That which immediately affects the sight, and produces in us that sensation which we call seeing, is light.

Light may be considered either, first, as it radiates from luminous bodies directly to our eyes; and thus we see luminous bodies themselves, as the sun, or a flame, &c. or, secondly, as it is reflected from other bodies; and thus we see a man or a picture, by the rays of light reflected from them to our eyes.

Bodies, in respect of light, may be divided into three sorts; first, those that emit rays of light, as the sun and fixed stars; secondly, those that transmit the rays of light, as the air; thirdly, those that reflect the rays of light, as iron, earth, &c.: the first are called luminous, the second pellucid, and the third opaque.

The rays of light themselves are not seen, but by them the bodies from which they originally come, as the sun or a fixed star, or the bodies

from which they are reflected, as a horse or a tulip. When the moon shines, we do not see the rays which come from the sun to the moon, but by them we see the moon, from whence they are reflected.

If the eye be placed in the medium through which the rays pass to it, the medium is not seen at all ; for instance, we do not see the air through which the rays come to our eyes : but if a pellucid body, through which the light comes, be at a distance from our eye, we see that body, as well as the bodies from whence the rays come that pass through them to come to our eyes. For instance, we do not only see bodies through a pair of spectacles, but we see the glass itself : the reason whereof is, that pellucid bodies being bodies, the surfaces of which reflect some rays of light from their solid parts ; these surfaces, placed at a convenient distance from the eye, may be seen by those reflected rays ; as, at the same time, other bodies beyond those pellucid ones may be seen by the transmitted rays.

Opaque bodies are of two sorts, specular or not specular. Specular bodies, or mirrors, are such opaque bodies, whose surfaces are polished ; whereby they, reflecting the rays in the same order as they come from other bodies, show us their images.

The rays that are reflected from opaque bodies always bring with them to the eye the idea of colour ; and this colour is nothing else, in the bodies, but a disposition to reflect to the eye more copiously one sort of rays than another. For particular rays are originally endowed with particular colours ;

some are red, others blue, others yellow, and others green, &c.

Every ray of light, as it comes from the sun, seems a bundle of all these several sorts of rays; and as some of them are more refrangible than others, that is, are more turned out of their course, in passing from one medium to another, it follows, that after such refraction they will be separated, and their distinct colour observed. Of these, the most refrangible are violet, and the least red; and the intermediate ones, in order, are indigo, blue, green, yellow, and orange. This separation is very entertaining, and will be observed with pleasure in holding a prism in the beams of the sun.

As all these rays differ in refrangibility, so they do in reflexibility; that is, in the property of being more easily reflected from certain bodies than from others; and hence arise, as hath been said, all the colours of bodies, which are, in a manner, infinite, as an infinite number of compositions and proportions of the original colours may be imagined.

The whiteness of the sun's light is compounded of all the original colours, mixed in a due proportion.

Whiteness, in bodies, is but a disposition to reflect all colours of light, nearly in the proportion they are mixed in the original rays; as, on the contrary, blackness is only a disposition to absorb or stifle, without reflection, most of the rays of every sort that fall on the bodies.

Light is successively propagated with an almost inconceivable swiftness; for it comes from the sun to this our earth in about seven or eight minutes

of time, which distance is about 80,000,000 English miles.

Besides colour, we are supposed to see figure; but, in truth, that which we perceive when we see figure, as perceptible by sight, is nothing but the termination of colour.

### *Of Hearing.*

Next to seeing, hearing is the most extensive of our senses. The ear is the organ of hearing, whose curious structure is to be learned from anatomy.

That which is conveyed into the brain by the ear is called sound; though, in truth, till it come to reach and affect the perceptive part, it be nothing but motion.

The motion which produces in us the perception of sound, is a vibration of the air, caused by an exceeding short but quick tremulous motion of the body, from which it is propagated; and therefore we consider and denominate them as bodies sounding.

That sound is the effect of such a short, brisk, vibrating motion of bodies, from which it is propagated, may be known from what is observed and felt in the strings of instruments and the trembling of bells, as long as we perceive any sound come from them; for as soon as that vibration is stopped or ceases in them, the perception ceases also.

The propagation of sound is very quick, but not approaching that of light. Sounds move about 1140 English feet in a second of time; and in seven or eight minutes of time they move about 100 English miles.

*Of Smelling.*

Smelling is another sense, that seems to be wrought on by bodies at a distance; though that which immediately affects the organ, and produces in us the sensation of any smell, are effluvia, or invisible particles, that, coming from bodies at a distance, immediately affect the olfactory nerves.

Smelling bodies seem perpetually to send forth effluvia, or steams, without sensibly wasting at all. Thus a grain of musk will send forth odoriferous particles for scores of years together, without its being spent; whereby one would conclude that these particles are very small: and yet it is plain, that they are much grosser than the rays of light, which have a free passage through glass; and grosser also than the magnetic effluvia, which pass freely through all bodies; when those that produce smell will not pass through the thin membranes of a bladder, and many of them scarce ordinary white paper.

There is a great variety of smells, though we have but a few names for them; sweet, stinking, sour, rank, and musty, are almost all the denominations we have for odours; though the smell of a violet and of musk, though both called sweet, are as distinct as any two smells whatsoever.

*Of Taste.*

Taste is the next sense to be considered.

The organ of taste is the tongue and palate.

Bodies that emit light, sounds, and smells, are seen, heard, and smelled at a distance; but bodies

are not tasted, but by immediate application to the organ; for till our meat touch our tongues or palates, we taste it not, how near soever it be.

It may be observed of tastes, that though there be a great variety of them, yet, as in smells, they have only some few general names, as sweet, bitter, sour, harsh, rank, and some few others.

### *Of Touch.*

The fifth and last of our senses is touch; a sense spread over the whole body, though it be most eminently placed in the ends of the fingers.

By this sense the tangible qualities of bodies are discerned; as hard, soft, smooth, rough, dry, wet, clammy, and the like.

But the most considerable of the qualities that are perceived by this sense are heat and cold.

The due temperament of those two opposite qualities is the great instrument of nature, that she makes use of in most if not all her productions.

Heat is a very brisk agitation of the insensible parts of the object, which produces in us that sensation, from whence we denominate the object hot; so what in our sensation is heat, in the object is nothing but motion. This appears by the way whereby heat is produced; for we see that the rubbing of a brass nail upon a board will make it very hot, and the axle-trees of carts and coaches are often hot, and sometimes to a degree, that it sets them on fire, by the rubbing of the nave of the wheel upon it.

On the other side, the utmost degree of cold is

the cessation of that motion of the insensible particles, which to our touch is heat.

Bodies are denominated hot and cold in proportion to the present temperament of that part of our body to which they are applied; so that feels hot to one which seems cold to another; nay, the same body, felt by the two hands of the same man, may, at the same time, appear hot to the one and cold to the other, because the motion of the insensible particles of it may be more brisk than that of the particles of the other.

Besides the objects before mentioned, which are peculiar to each of our senses, as light and colour of the sight, sound of hearing, odours of smelling, savours of tasting, and tangible qualities of the touch—there are two others, that are common to all the senses; and those are pleasure and pain, which they may receive by and with their peculiar objects. Thus, too much light offends the eye; some sounds delight, and others grate the ear; heat in a certain degree is very pleasant, which may be augmented to the greatest torment; and so the rest.

These five senses are common to beasts with men: nay, in some of them, some brutes exceed mankind. But men are endowed with other faculties, which far excel any thing that is to be found in the other animals in this our globe.

Memory also brutes may be supposed to have, as well as men.

## XII. OF THE UNDERSTANDING OF MAN.

THE understanding of man does so surpass that of brutes, that some are of opinion brutes are mere machines, without any manner of perception at all. But letting this opinion alone, as ill-grounded, we will proceed to the consideration of human understanding, and the distinct operations thereof.

The lowest degree of it consists in perception, which we have before in part taken notice of, in our discourse of the senses: concerning which it may be convenient farther to observe, that, to conceive a right notion of perception, we must consider the distinct objects of it, which are simple ideas; *v. g.* such as are those signified by these words, scarlet, blue, sweet, bitter, heat, cold, &c. from the other objects of our senses; to which we may add the internal operations of our minds, as the objects of our own reflection, such as are thinking, willing, &c.

Out of these simple ideas are made, by putting them together, several compounded or complex ideas, as those signified by the words pebble, mary-gold, horse.

The next thing the understanding doth in its progress to knowledge, is to abstract its ideas, by which abstraction they are made general.

A general idea is an idea in the mind, considered there as separated from time and place; and so capable to represent any particular being that is conformable to it. Knowledge, which is the highest degree of the speculative faculties, consists in the

perception of the truth of affirmative or negative propositions.

This perception is either immediate or mediate. Immediate perception of the agreement or disagreement of two ideas, is when, by comparing them together in our minds, we see, or, as it were, behold, their agreement or disagreement. This, therefore, is called intuitive knowledge. Thus we see that red is not green, that the whole is bigger than a part, and that two and two are equal to four.

The truth of these and the like propositions, we know by a bare simple intuition of the ideas themselves, without any more ado; and such propositions are called self-evident.

The mediate perception of the agreement or disagreement of two ideas, is when, by the intervention of one or more other ideas, their agreement or disagreement is shown. This is called demonstration, or rational knowledge. For instance; the inequality of the breadth of two windows, or two rivers, or any two bodies that cannot be put together, may be known by the intervention of the same measure, applied to them both; and so it is in our general ideas, whose agreement or disagreement may be often shown by the intervention of some other ideas; so as to produce demonstrative knowledge, where the ideas in question cannot be brought together, and immediately compared, so as to produce intuitive knowledge.

The understanding doth not know only certain truth, but also judges of probability, which consists in the likely agreement or disagreement of ideas.

The assenting to any proposition as probable is called opinion or belief.

We have hitherto considered the great and visible parts of the universe, and those great masses of matter, the stars, planets, and particularly this our earth, together with the inanimate parts, and animate inhabitants of it: it may be now fit to consider what these sensible bodies are made of; and that is of unconceivably small bodies, or atoms, out of whose various combinations bigger moleculæ are made; and so, by a greater and greater composition, bigger bodies; and out of these the whole material world is constituted.

By the figure, bulk, texture, and motion of these small and insensible corpuscles, all the phænomena of bodies may be explained.

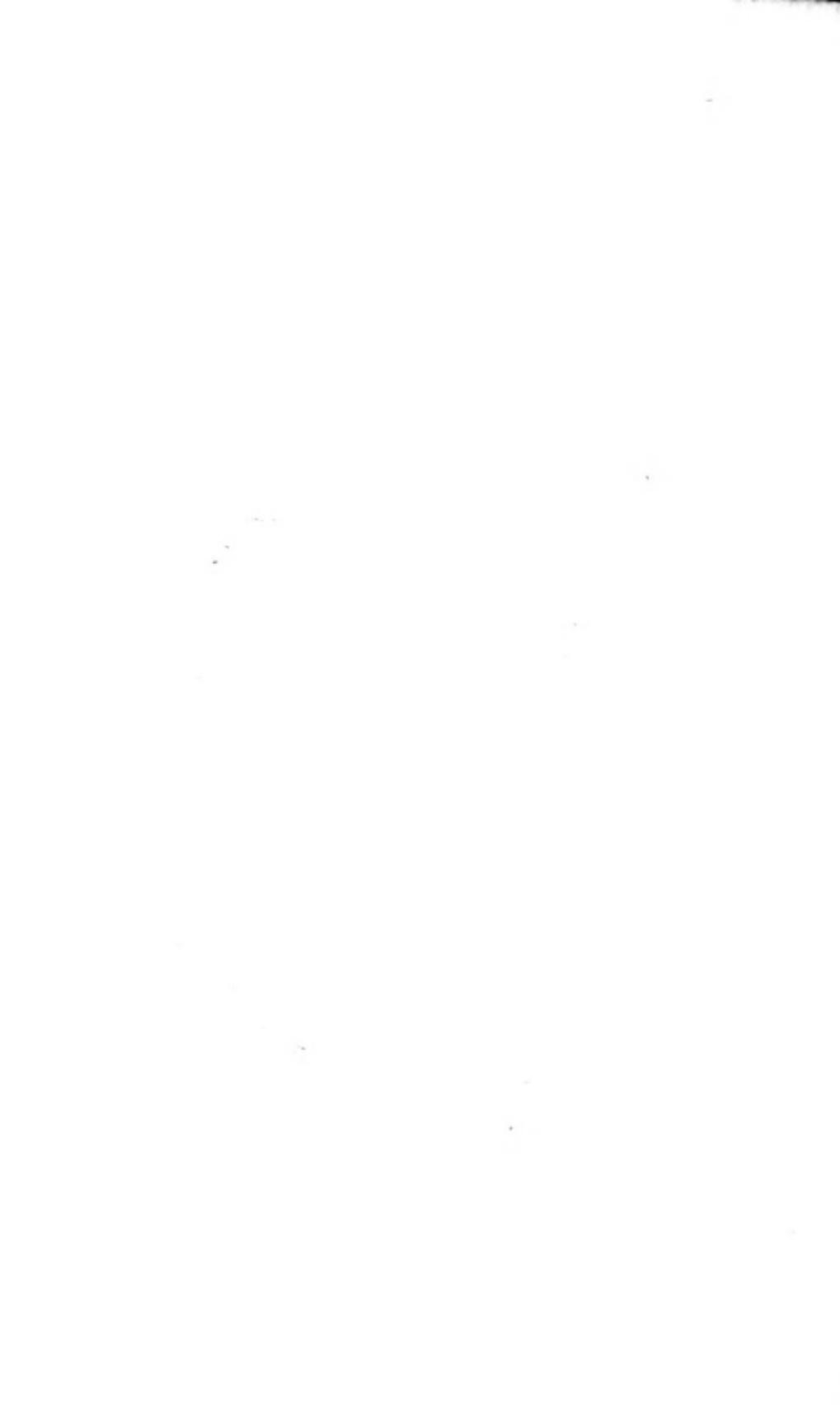
THE END.



REFLECTIONS  
BY THE  
HON. ROBERT BOYLE.



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1820.



THE name of BOYLE has long been familiar to the ear of the general reader, in connexion with the names of BACON, NEWTON, and LOCKE ; and it yet remains, in our various biographical collections, a bright example of literary, moral, and religious worth. But the works of this writer, ponderous in their bulk, and in many respects superseded by the subsequent improvements of science, to which he, in an eminent degree, contributed, are now rarely consulted, except by those whose genius leads them into similar paths of inquiry. The moral and religious portions of them, however, deserve a better fate ; yet, with the exception of a reprint of the following REFLECTIONS, which issued from the press about twelve years ago, even these are extant only in their original and antiquated form. Not only was it impossible for the editor of this miscellany entirely to omit the works of a writer so excellent as BOYLE, but he has considered the present volume admirably fitted to embellish and improve it. The reader of the nineteenth century may perhaps smile at the occasion of many of the thoughts ; but it is impossible for him not to admire and feel the piety and the correctness of the inferences which the author of them has drawn.

April, 1820.



# BOYLE'S REFLECTIONS.

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## FIRST SECTION.

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### REFLECTION I.

*Upon his manner of giving meat to his dog.*

IGNORANTLY thankful creature! thou beggest in such a way, that by what would appear an antedated gratitudo, if it were not a designless action, the manner of thy petitioning beforehand rewards the grant of thy request; thy addresses and recompence being so made, that the meat I cast thee may very well feed religion in me. For but observe this dog: I hold him out meat, and my inviting voice loudly encourages and invites him to take it; it is, indeed, held higher than he can leap; and yet, if he leap not at it, I do not give it him; but if he do, I let it fall half way into his mouth. Not unresemblingly deals God with us; he shows and holds forth to us (the soul's true aliment) eternal glory; and his most gracious word summons and animates us to attempt it. Alas! it is far above the reach of our endeavours and our deserts; and yet, if we aspire

not to it, and strive not for it, in vain do we expect it : but if we faithfully do what in us lies, and our endeavours strain themselves to the utmost, God mercifully allows the will for the effect, measures our performances by what they aimed at, and favourably accepting what we can do for what we should do, he supplies the imperfections of our faint, yet aspiring attempts, by stooping condescensions ; and what our endeavours want of reaching up to, his grace and acceptance brings down. Piety is the condition, though not the price of heaven ; and (like the wedding garment in the parable) though it give us not a right to the beatific feast, is, yet, that, without which none shall be admitted as a duly qualified guest : for though we cannot reach heaven by our good works only, we shall not attain it without them.

## REFLECTION II.

*Upon his distilling spirit of roses in an alembic.*

ONE who knew how well I love the scent of roses, and were ignorant of the uses of this way of distillation, would, questionless, think me very ill advised thus hastily to deprive myself of the flowers I most love, and employ art to make them wither sooner than nature would condemn them to do. But those that know both the fading condition of flowers (which, unimproved by art, delight but whilst they are, what they cannot long be, fresh), and the exalting efficacy of this kind of distillation, will think this artificial way, that chemists take, of spoiling them, is an effect, as well of their providence as their skill : for

that pleasing and sprightly scent, that makes the rose so welcome to us, is as short-lived and perishing as the flower that harbours it is fading; and though my alembic should not, yet a few days inevitably would make all these roses wither. But by this way of ordering my roses, though I cannot preserve them, I can preserve that spirituous and ethereal part of them, for whose sake it is that I so much prize and cherish this sort of flowers; which by this means I preserve, not indeed, in the fading body, but in the nobler and abstracted quintessence; which purer and lastinger portion of them will be more highly fragrant than ordinary roses are wont to be, (even whilst they are fresh,) in that season when those flowers that have not been thus early and purposely destroyed, will, according to the course of nature to which they are left, wither and putrefy.

Thus, he that sees a charitable person liberally part with that money which others are so fond of, if he be a stranger to the operations of faith and the promises of the Gospel, will be apt to mistake the Christian's liberality for folly or profusion, and to think that he is fallen out with his money. But he that remembers how clear a prospect, and how absolute a disposal of the future, the Scripture of truth (to use an angel's expression) ascribes to him, that bade his disciples "make themselves friends with the uncertain Mammon, that when we fail, they may receive us into everlasting habitations;" and he that likewise considers not only the transitory nature of worldly possessions, (from which their perishing or ours will be sure ere long to divorce us,) but the inestimable advantage, with

which we shall receive in heaven whatever we employ in pious uses here on earth, will conclude this way of parting with our wealth the surest and gainfullest way of preserving it : since the Christian, by parting but with what, however, he could not long keep, shall, by God's munificent goodness, obtain a much more valuable treasure, that he shall never lose : so that thus to sacrifice wealth to charity, is not an early loss of it, but the right way of securing it ; for by this gainful way, when we shall in another world be past the possibility of possessing our riches in kind, such an employment of them may help us to enjoy them ; and thus laid up, they may there procure us, what they could never here afford us—Happiness.

### REFLECTION III.

#### *His horse stumbling in a very fair way.*

HERE is a patch of way, to which any less smooth than a bowling-green were rugged, and in which it seems not only so unlikely, but so difficult for a horse to trip, that nothing could have made me believe a horse could have stumbled here, but that mine has dangerously done so. This jade has this very evening carried me safely through ways where stumbles were so much to be expected, that they were to have been forgiven ; and now, in a place so smooth, that sure she could not falter in it, only out of curiosity and trial, she falls under me so lubberly, that I as much admired my escape as danger : but it is too usual with us unfalteringly to traverse Adversity's rough ways, and stumble in Pros-

perity's smoothest paths. The observation is almost as old as prosperity, that fortune ruius more persons whilst she embraces them than whilst she would crush them: but though the observation be very common, it is not more so, than it is to see even those who make it add to the instances that justify it. I have seldom yet been obnoxious to that less frequently pitied than disarming danger: fortune has seldom yet vouchsafed to turn siren to pervert me; I think too, that, without slandering myself, I may confess, that I have sometimes wished myself in the lists with that bewitching enemy Prosperity; and increased the number of those many, who never think so fair an adversary formidable till they find themselves vanquished by her. But upon second thoughts, I judge it better to leave the choice of my antagonist to him who not only best knows my strength, but gives it me; especially, when I consider, that as we are all of us naturally such stumblers, that, as Solomon speaks somewhat in another sense, "even the just man falls seven times a day;" (Prov. xxiv. 16.) so it is observed in stumblers, that they are most so in a fair way; into which, therefore, if Providence lead my steps, I shall think it seasonable to pray, "and lead us not into temptation;" and shall not think it unseasonable to remember, that ice is at once the smoothest and slippiest of ways, and that (the jadishness of our natures well considered) there is no way wherein we ought to travel with more heed, than that whose treacherous evenness would divert us from taking heed to our ways.

## REFLECTION IV.

*Upon two very miserable beggars, begging together  
by the high-way.*

BEHOLD this foremost wretch, whose strange deformity and ghastly sores equally exact our pity and our horror ; he seems so fit an object for compassion, that, not to exercise it towards him, can scarce proceed from any other cause than the not having any at all : the sadness of his condition is augmented by his want of eyes to see it ; and his misery is such, that it calls for an increase of pity, by his being so distracted, as to desire a longer life, or rather longer death. He sues more movingly to the eye than to the ear ; and does petition much less by what he says, than by what he is. Each several member of his tortured body is a new motive to compassion, and every part of it so loudly pleads for pity, that, as of scolds, it may, in another sense, be said of him, that “ he is all tongue :” but yet, this other beggar thinks not his condition is the less deplorable for his companion’s being the more so. He finds in the diseases of his fellow as little consolation as cure ; nor does he at all think himself supplied with a deficient hand, because the other wants one. Therefore, he is as importunate for relief, as if all miseries were not only heaped on him, but confined to him : his fellow’s burthen lightens not his load ; and if fortune never had persecuted any other, he could not more deplore nor resent her persecutions. Translate, now, O my soul ! all this into spirituals ;

and as we measure the straightness of lines, not by a ram's horn, but by a ruler ; so be not thou so rash as to infer thy health from others' more forlorn and desperate diseases : let not the greater difficulty of another's cure lessen the solicitousness of thy care for thine, nor make thee less earnest in the imploring and labouring for relief. In so depraved an age as ours, one may, (and, perhaps, in vain too,) search hell to find wickeder men than are to be but too frequently met with upon earth ; he will scarce be innocent that will think himself so as long as he finds a man more culpable than he ; and he shall scarce ever judge himself guilty, whom the sight of a guiltier will absolve : nor will that man, till it is, perhaps, too late, be apt to attempt an escape from the pollutions of the world, that stays till he can see none more inextricably entangled in them than himself. Do not, therefore, O my soul ! content thyself with that poor comparative innocence, that in heaven (which it will never bring thee to) has no place, by reason of the absence of all vicious persons ; and in hell itself, (which it secures thee not from) can only afford the ill-natured consolation, of not being altogether as miserable as the wretchedest person in that place of torment,

## REFLECTION V.

*Sitting at ease in a coach that went very fast.*

As fast as this coach goes, I sit in it so much at ease, that whilst its rapid motion makes others suspect that I am running for a wager, this lazy pos-

ture and this soft seat do almost as much invite me to rest as if I were in bed.

The hasty wheels strike fire out of the flints they happen to run over, and yet, the self-same swiftness of these wheels, which, were I under them, would make them crush my bones themselves into splinters, if not into a jelly; now I am seated above their reach, serves but to carry me the faster towards my journey's end. Just so it is with outward accidents and conditions, whose restless vicissitudes do but too justly and too fitly resemble them to wheels: when they meet with a spirit that lies prostrate on the ground, and falls grovelling beneath them, they disorder and oppress it; but he, whose high reason and exalted piety, has, by a noble and steady contempt of them, placed him above them, may enjoy a happy and settled quiet, in spite of all these busy agitations; and be so far from resenting any prejudicial discomposure from these inferior revolutions, that all those changes that are taken for the giddy turn of Fortune's wheel, shall serve to approach him the faster to the blessed mansion he would arrive at.

#### REFLECTION VI.

*Upon his coach's being stopped in a narrow lane.*

HERE, for aught I can guess, my stay is like to be long enough, to afford me the leisure of a reflection on it; for I have found already, in this narrow lane, a very large scene to exercise my patience in; and this churlish dray-man seems resolved to be as tedi-

ous to me, as Ludgate-hill is to his horse, when his cart is overladen. They that are going on foot to the same place this coach should carry me to, find not their passage hindered or their way obstructed by that which keeps me here ; and were I disposed to leave my coach behind, and foot it after them, I might, in their company, sooner reach the place my designs and affairs call me to, than I shall, probably, be supplied with hopes of getting quickly out from hence. Alas ! how frequently falls it out thus in our journeys towards heaven ! Those whom their adverse fortune or a noble scorn, hath stripped of, or released from, these troublesome and entangling externals, may tread the paths of life nimbly and cheerfully, being unstopped by many obstacles that intercept the progresses of others. But those stately persons, whose pride or effeminacy will not permit them to move an inch towards heaven, unless they may be carried thither in pleasure's easy coaches ; and who will not bait a superfluity, or lay by the least circumstance or punctilio of grandezza, to lessen themselves into a capacity of entering in at the straight gate, may soon find these treacherous and over-loved conveniences turned into cumbersome clogs and real impediments, that will, if not block up, at least obstruct the passage to the seat of so much joy, that even to be cast ashore there, by shipwreck, were a blessing ; and that he is thought unworthy to be admitted there, who cannot think it his happiness to reach that place himself, though he leave all behind him to get thither.

## REFLECTION VII.

*Looking through a perspective glass upon a vessel we suspected to give us chase, and to be a pirate.*

Sailing betwixt Rotterdam and Gravesend, on Easter-day,  
1648.\*

THIS glass does, indeed, approach the distrusted vessel, but it approaches it only to our eyes, not to our ship. If she be not making up to us, this harmless instrument will prove no loadstone to draw her towards us ; and if she be, it will put us into a better readiness to receive her. Such another instrument in relation to death, is the meditation of it, (by mortals so much and so causelessly abhorred;) for though most men as studiously shun all thoughts of death, as if, like nice acquaintances, he would forbear to visit where he knows he is never thought of, or as if we could exempt ourselves from being mortal by forgetting that we are so ; yet does this meditation bring death nearer to us, without at all lessening the real distance betwixt us and him. If our last enemy be not yet approaching us, this innocent meditation will no more quicken his pace than direct his steps ; and if he be, without hastening his arrival, it will prepare us for his reception. For my part, my beardless chin allows me to presume, that, by the course of nature, I have yet a pretty stock of sand in the upper part of my hour-glass ; where-

\* It appears that the author made a short excursion to Holland about this time.

fore, though I am too young to say with Isaac, “Behold, now I am old, and I know not the day of my death;” (Gen. xxvii. 2.) yet since it is the wise man’s counsel, “not to boast ourselves of to-morrow, because we know not what a day may bring forth;” I will endeavour (to use our Saviour’s terms,) “To take heed to myself, lest at any time that day come upon me unawares.” (Luke xxi. 34.) And as the only safe expedient in order thereto, I will (in imitation of holy Job) “all the days of my appointed time wait till my change is come.” (Job, xiv. 24.)

## SECOND SECTION,

CONTAINING OCCASIONAL REFLECTIONS UPON THE  
ACCIDENTS OF AN AGUE.

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### MEDITATION I.

*Upon the first invasion of the disease.*

This visit, dear Sophronia\*, which you intended but for an act of kindness, proves also, one of charity; for though it be not many hours since we parted, and though you left me free from any other discomposure than that which your leaving me is wont to give me; yet this little time has made so great a change in my condition, as to be, I doubt not, already visible in my looks. For whilst I was sitting quietly in my chamber, far from thoughts of sickness; and whilst I was delightfully entertained by an outlandish virtuoso that came to visit me, with an account of the several attempts that are

\* A name often given by the author to his excellent sister, lady Ranelagh, who was almost always with him during his sickness. It appears that he spent many of the latter years of his life in her house and society; and that after a life here in which they assisted one another in the practice of every charity, they were translated to a better, within a week of each other. She died 23d Dec. 1691; he on the 30th Dec. following.

either made or designed in foreign parts to produce curiosities and improve knowledge ; I was suddenly surprised with a chillness and a shivering that came so unexpected, and increased so fast, that it was heightened into a downright fit of an ague before I could satisfy myself what it was. But I confess, that this unwelcome accident had not amazed me as well as troubled me, if I had considered to what a strange number and variety of distempers these frail carcases of ours are obnoxious. For if I had called to mind what my curiosity for dissections has shown me, and remembered how many bones, and muscles, and veins, and arteries, and gristles, and ligaments, and nerves, and membranes, and juices, a human body is made up of ; I could not have been surprised, that so curious an engine, that consists of so many pieces, whose harmony is requisite to health, and whereof not any is superfluous nor scarce any insensible, should have some or other of them out of order ; it being no more strange that a man's body should be subject to pain or sickness, than that an instrument with above a thousand strings, if there were any such, should frequently be out of tune : especially, since the bare change of air may as well discompose the body of a man as untune some of the strings of such an instrument : so that even the inimitable structure of human bodies is scarce more admirable, than that such curious and elaborate engines can be so contrived, as not to be oftener out of order than they are ; the preservation of so nice a frame being the next wonder to its workmanship. Indeed, when I consider further, how many outward accidents are able to destroy the life, or at least the health, even of those that are

careful to preserve them ; and how easily the beams of a warm sun, or the breath of a cold wind, or too much or too little exercise, a dish of green fruit, or an infectious vapour, or even a sudden fright, or ill news, are able to produce sickness, and perhaps death ; and when I think too, how many evitable mischiefs our own appetites or vices expose us to, by acts of intemperance and practices of sin, whereby we provoke the Creator to punish us—when I consider all this, and consequently how many mischiefs he must escape who arrives at gray hairs ; I confess, the commonness of the sight cannot keep me from some wonder to see an old man, especially if he be any thing healthy. But these kind of thoughts, Sophronia, are seldom entertained, unless they be excited by some unwelcome occasions ; and when we are long accustomed to health, we take it for granted that we shall enjoy it, without taking it for a mercy that we do so. We are not sensible enough of our continual need and dependence on the divine gooduess, if we long and uninterruptedly enjoy it ; and by that unthankful heedlessness, we do, as it were, necessitate Providence to deprive us of its wonted supports, in order to make us sensible that we did enjoy, and that we always need them ; it being but fit that mercies should cease to be constant, which, their constancy only, that should be their endearment, keeps us from entertaining as mercies. I will, therefore, Sophronia, endeavour to derive this advantage from this sudden fit of sickness ; to make me thankful for health, when God shall be pleased to restore it me, and to keep me from reckoning confidently upon the lastingness of it : for so

many and so various are the unforeseen accidents to which we poor mortals are exposed, that the continuance of our health or prosperity does much more merit our thanks, than the interruption of them can deserve our wonder : and, I must confess, dear Sophronia, that though my falling sick may be but my unhappiness, my being so surprised at it was my fault.

## MEDITATION II.

*On the immoderate heat and cold of the aguish fit.*

ONE, who not knowing what ails me, should come in, and see me in this soft bed, not only covered, but almost oppressed with clothes, would confidently conclude, that whether or no I be distressed by the contrary quality, I cannot, at least, be troubled with cold ; and if he himself were so, he would be apt to envy me. If, instead of coming in my cold fit, he should visit me in my hot one, and see me with my shoulders and arms quite uncovered, and nothing but the single sheet on the rest of my body, he would be apt to think that I must lie very cool. But, alas ! in spite of all that lies upon me, an eternal frost has so diffused itself through every part, that my teeth chatter, and my whole body does shake strongly enough to make the bed itself do so ; and though I still wish for more clothes, yet those that are heaped on me can so little control this preternatural cold, that a pile of them might sooner be made great enough to crush me than to warm me ; so that when I travelled even in frosty

nights, the winter had nothing near so strong an operation on me : and, as that external cold was far more supportable whilst it lasted, so it was incomparably more easy to me, by exercise and otherwise, to deliver myself from it.

Thus, when a great or rich man's mind is distempered with ambition, avarice, or any immoderate affection, though the bystanders, that see not what disquiets him, but see what great store of accommodations fortune has provided for him, may be drawn to envy his condition, and be kept very far from suspecting that he can want that contentment, the means of which they see him so richly supplied with. And yet, alas ! as the cold or heat of the external air is much less troublesome to a man in health, though furnished with an ordinary proportion of clothes, than the cold or hot fit of an ague, with a pile of blankets first, and then a single sheet ; so to a vigorous and healthy constitution of mind, external inconveniences are much more supportable than any accommodations can make the condition of a distempered soul. Let us not, then, judge of men's happiness so much by what they have, as by what they are ; and consider both, that fortune can but give much, and it must be the mind that makes that much enough : and that as it is more easy to endure winter or the dog-days in the air than in the blood, so a healthful mind, in spite of outward inconveniences, may afford a man a condition preferable to all external accommodations without them.

## MEDITATION III.

*Upon the succession of the cold and hot fit,*

WHEN the cold fit first seized me, methought it was rather melted snow than blood that circulated in my veins, where it moved so inordinately, and maintained the vital flame so penuriously, that the greatest sign which was left to distinguish the cold from that of death, was its making me shake strong enough to shake the bed I lay on. I called for more and more clothes, only because I needed them, not because I found any relief by them: I fancied the torrid zone to be of a far more desirable constitution than that we call the temperate; and as little as I am wont to reverence vulgar chemists, I then envied their laborants, whose employment requires them to attend the fire. But when the cold fit was once over, it was quickly succeeded by a hot one, which, after a while, I thought more troublesome than it: I threw off the clothes faster than my former importunity had procured them to be laid on me; and I, that could a little before scarce feel all that had been heaped on me, could not now support a single sheet, but thought its weight oppressed me. I envied the inhabitants of Norway and Iceland far more than those that dwell either in the richest provinces of East India: and of all creatures not rational, I thought the fishes the happiest, since they live in a cool stream, and, when they please, may drink as much as they list. If, then, Sophronia, the self same person

may, within less than two hours, have such different apprehensions of his own condition, as now to complain of that as a grievance, which, but an hour before, he wished for as a relief ; we may well acknowledge, that we frequently mistake in estimating the hardships and afflictions we complain of, and find them not so uneasy as we make them ; whilst we not only endure the whole affliction that troubles us, but often increase it, by repining at the envied condition of others.

An afflicted man is very apt to fancy that any kind of sickness, that for the present troubles him, is far less supportable than any other ; and imagines his case to be so singular, that one cannot say to him in St. Paul's language, "No temptation has befallen you, but that which is common to men." (1 Cor. x. 13.) He presumes that he could far more easily support his crosses, if, instead of his present disease, he has this or that other ; though, if the exchange were made, he would perchance wish for his first sickness, if not be as much troubled at his own folly as with the disease. He that is tormented with the gout is apt to envy any sick man that is exempted from that roaring pain, and able to walk about : he that has a dropsy, fancies all persons happy, whose diseases allow them drink to quench their thirst : and the blind man envies both these, and thinks no persons so miserable in this world, as those that cannot see the world. Fevers burn us ; agnes shatter us ; dropsies drown us ; phrenesies unman us ; the gout tortures us ; convulsions rack us ; and, in short, there is no considerable disease that is not very troublesome in itself, however religion may sanctify and sweeten

it : indeed, if a disease prove mortal, it is no more than is to be expected, if it tire out the patient with tedious languishments, or else despatch him with dismal symptoms. Nor is it in point of sickness only that we are often more unhappy than we need, by fancying ourselves more unhappy than we should be if we were allowed to exchange that which now troubles us for any thing which does not : but there are evils, which, though exceeding contrary in appearance and circumstances, do yet agree in being extremely troublesome ; as the possessed wretch our Saviour cured in the Gospel, though he were sometimes cast into the fire and sometimes into the water, yet, in both states, was tormented by the same devil, who, in variety of inflictions, still expressed the same malice. But we should make a righter estimate of suffering, if we did but consider that much uneasiness is annexed to an afflicted condition in general. If a man were permitted to exchange his disease for those of others, he would often find his granted wishes to bring him a variety of mischiefs rather than an exemption from them ; and many of those that we envy, as thinking them far less sufferers than ourselves, do look with invidious eyes on us, and do but dissemble their grievances more handsomely than we, not find them more easy than ours. I doubt not, but we should support many of our grievances quite as easily as those for which we wish them exchanged, if the chief account upon which they trouble us were not rather that they are the present ones, than that they are the greatest.

## MEDITATION IV.

*Upon being let blood.*

ONE of the most troublesome symptoms in all feverish distempers is wont to be thirst; and in mine it was importunate to a degree, that made me very much so, in frequently soliciting those that were about me for drink; which, in the heat of the fit, seemed so desirable an object, that it then much lessened my wonder at that parched king's agreement, who, urged with thirst, sold his liberty for a full draught of cold water. But, alas! I sadly found that the liquor I swallowed so greedily afforded me but a very transient relief, the latter being gone almost as soon as the former had passed through my throat; so that not only it did but amuse, not cure me, but, which is worse, drinking itself increased my thirst, by increasing the fever, whose symptom that was. Wherefore, seeing all the cooling juleps that could be administered did free me from nothing but the expectation of being relieved by such slight and palliative medicines; the doctor thought himself, this day, obliged to a quite contrary and yet a more generous remedy; and ordered, that, instead of giving me drink, they should take away blood; as judging it the best and far surest course to take away the uneasy symptom, by removing that which foments the cause.

Thus, when the mind is distempered with turbulent commotions, and the disquieted appetite does too restlessly and eagerly crave objects, which

though, perhaps, in themselves, not absolutely bad, are, at least, made, by a conjunction of circumstances, unfit and dangerous for the person that longs for them ; we, like unskilful or unruly patients, fondly imagine, that the only way to appease our desires, is to grant them the objects they so passionately tend to. But the wise and sovereign Physician of Souls, who considers not so much what we do wish, as what we should wish, often discerns, that this preternatural thirst indicates and calls for a lancet rather than a julep, and knows it best to attempt the cure, rather by taking away somewhat that we have, than by giving us that which only our superfluity reduces us to want. In effect, we often see, that as a few ounces of blood taken away in a fever, does cool the patient much more than giving him ten times as much drink would do ; so a few afflictions, by partly letting out, and partly moderating our corrupt affections, do more compose and appease a mind molested with inordinate appetites, than the possession of a great many of the objects we impotently desire. Whilst our appetites are roving, and unreasonable, and insatiate, the obtaining of this or that particular object, does but amuse the patient, not take away the disease : whereas, seasonable and sanctified crosses, that teach us to know ourselves, and make us sensible how little we deserve, and how little things, we are so greedy of, could make us happy if obtained, may reduce us to a resignation and tranquillity of mind preferable to those overvalued things. Thus, Zacchaeus, who, whilst a publican, never thought he had enough, when he had once entertained our Saviour, though

he offered to make a quadruple restitution of whatever he had fraudulently acquired, was, upon a sudden, by being freed from avarice, grown so rich, that he was forward to give no less than half he had to the poor : as if his divine guest had wrought upon his goods such miracles as he had done upon the five loaves and two fishes, of which the remains amounted to more than the whole provision was at first.

#### MEDITATION V.

*Upon the sirups and other sweet things sent him by the doctor.*

THIS complaisant physician, Sophronia, is, you see, very solicitous that his remedies should as well gratify the patient as oppose the disease ; and besides that this julep is tinged with sirup of clove-gilly-flowers, that it may at once delight the palate and the eye ; some of these other remedies are sweetened with as much sugar as if they came not from an apothecary's shop, but a confectioner's : but my mouth is too much out of taste to relish any thing that passes through it ; and though my sickness makes this flattering of the palate almost necessary to the rendering these medicines takeable by me ; yet, upon the account of the same distemper, all that the doctor's tenderness and skill could do to make them pleasant, can, at most, but keep them from being loathsome : so that he, who for the sake of these sirups and electuaries, should, notwithstanding the malady that needs them, envy

me, might be suspected to be troubled with a worse disease than ague, that is a phrensy. Thus, there are many favourites of fortune, whose seeming enjoyments may perchance be envied by those that do but gaze on their condition, whilst it is rather pitied by those that know it. To be brought by greatness of power, or riches and effeminacy of mind, to that pass, that they seldom hear any thing but their own praises, even when their actions merit reprobation; and that they can relish nothing that is not sweetened with so much of flattery, as quite to disguise, and, perhaps, pervert its nature—these, and such other unhappy privileges, are things which (whatever fools may think) will not recommend greatness to a considering man, and are far more fit to procure the possessor's ruin than wise men's envy.

## MEDITATION VI.

### *Upon the want of sleep.*

AH, dear Sophronia! in spite of all the care and officiousness of those diligent attendants that you were pleased to send to watch with me, I have slept all night as little as I do now, or as I shall desire to do whilst you stay here.

This unwelcome leisure brought me as much a necessity, as an opportunity to spend the time in entertaining my thoughts, which, on this occasion, were almost as various, and seemed too as wild, as, (if I had slept) my dreams themselves would have

been ; and therefore, I presume, you will not wonder if I can now recall but a few of them.

The first thought that I remember entertained me, was that which was most naturally suggested by the condition I was in : for when I found how tedious and wearisome each hour was, and observed how long a time seemed to intervene betwixt the several divisions that the striking of the clock made of the night ; I could not but consider, how insupportable their condition must be, who are cast into outer darkness, where tormented wretches lie, not as I do, upon a soft bed, but upon fire and brim-stone ; where no attendance of servants or kindness of friends is allowed them, that need it as much as they deserve it little : and, which is worst of all, where no beam of hope is permitted to console them, as if the day should dawn after so dismal a night, though protracted to millions of ages, each of whose miserable hours appears an age.

The next thing I was considering, was, how defective we are in point of gratitude to God ! I now blush that I cannot call to mind the time when I ever thought that his having vouchsafed me the power of sleeping deserved a particular acknowledgment : but now I begin to see that it is our heedlessness, not their uselessness, that keeps us from daily being thankful for a multitude of mercies that we take no notice of, though it be injurious that the very commonness, that heightens the benefit, should keep us from being sensible of the greatness of it. I confess I was very lately one of those, who looked upon sleep as one of the inconveniences of human nature, that require a consola-

tion ; and I very little apprehended that I should ever complain of want of sleep as of a grievance ; the necessity of it being what I always looked upon under that notion. But I now perceive that he was a wise man, who said that “ God made every thing beautiful in its season :” and yet, when I consider the affinity betwixt sleep and death, whose image it is, I cannot but think it unlikely this life should be designed for our happiness, since, not to lose almost half of it, were an infelicity.

Another thing, I remember, I was considering, was this ; that though want of sleep be one of the uneasiest accidents that attend on sickness, yet, in many cases, it proves as useful as it can be unwelcome : for there is a sort of jolly people, far more numerous than I could wish them, who are at utter defiance with thinking, and do as much fear to be alone, as they should to do any course that is naturally productive of so unmanly a fear. The same sinful employments, or vain pastimes, that make them afraid of being alone, do so much keep them from the necessity of being so, that they keep them almost from the very possibility of it : for, in the time of health, visits, businesses, cards, and I know not how many other avocations, which they justly style diversions, do succeed one another so thick, that in the day there is no time left for the distracted person to converse with his own thoughts : even when they are sick, though they be debarred of many of those wonted diversions, yet cards and company will give them enough to prove a charm against thinking in the day ; but in the long and tedious nights, when all the praters and the game-

sters (who are usually called good companions, but seldom prove good friends) are withdrawn, and have left our patient quite alone, the darkness of the night begins to make him discern and take some notice of his condition : his eyes, for want of outward objects, are turned inwards ; he must, whether he will or no, during the silence of the night, hear those lessons, which, by the hurry and avocations of the day, he endeavoured to avoid : and though this be a very unwelcome mercy, yet it is a mercy still ; and, perhaps, the greater for being unwelcome : for if he could sleep in sickness as he used to do in health, he were in great danger of having his conscience laid asleep, till it should be awaked by the flames and shrieks of hell. The design of God in chastening, being to reclaim and amend us, we not only do, by our want of reflecting, endure the pain of sickness, without reaping the benefit of it ; but also, by our shunning to consider, we are so ill natured to ourselves, as to lengthen the sickness we are so impatient of, which is, in us, as foolish as it would be in a nice patient, after having been made to take a bitter but salutary potion, to send unseasonably for cordials and juleps to hinder the working of it ; and so, by such unruliness, lose the benefit of the operation, and lengthen his pain and sickness, to avoid the far less trouble of complying with the nature of the medicine and the designs of the physician : so that repentance being necessary to recovery, and the considering of a man's own ways as necessary to repentance ; the want of sleep, which both allows us time, and imposes on us a necessity to think, may

well be looked upon as a happy grievance, since it very much tends to the shortening of our afflictions, by the disposing us to cooperate towards God's aims in sending them.

## MEDITATION VII.

### *Upon being in danger of death.*

I KNOW that physicians are wont, after their master Hippocrates, to tell us, that fevers which intermit are devoid of danger; but though an ague, whilst it continues such, could not be a mortal disease, yet why may it not degenerate into such an one? and for my part, who take the prognostics of physicians to be but guesses, not prophecies, and know how backward they are to bid us fear, till our condition leave them little hopes of us—I cannot but think that patient very ill advised, who thinks it not time to entertain thoughts of death as long as his doctor allows him any hopes of life; for, in case they should both be deceived, it would be much easier for the mistaken physician to save his credit, than for the unprepared sinner to save his soul.

Such like considerations, Sophronia, having put me upon the thoughts of death, I presume you may have some curiosity to know what these thoughts were. One thing, then, that I was considering, was, in how wretched a condition I should now be, if I had been of the same mind with the generality of those who are of the same age with me; for these presume that youth is as much made for pleasures as capable of them, and is not more a

temptation to vanity than an excuse for it. They imagine themselves to do a great matter, if, whilst youth lasts, they do so much as resolve to grow better when it is gone ; and they think that for a man to be otherwise than intentionally religious, before his hair begins to change colour, were not only to lose the privileges of youth, but to encroach upon those of old age. But, alas ! how few are destroyed by that incurable disease, in comparison to those that die before they attain it ! and how little comfort is it upon a death-bed, to think, that by the course of nature, a man might have lived longer, when that very thought might suggest to him that this untimely death is not so much a debt due to nature as a punishment of sin ! All the fruition of the deluding pleasures of sin cannot countervail the horror that a dying man's review of them will create ; who not only sees himself upon the point of leaving them for ever, but of suffering for them as long : and, on the contrary, the review of sinful pleasures declined for virtue's and religion's sake, will afford a dying man far higher joys than their fruition would ever have afforded him.

And one thing more there is, Sophronia, that I dare not conceal from you, how much cause soever I have to blush at the disclosing it ; it is, that I judge quite otherwise of a competent preparation for death, now I am near it, than I did when I was in health : therefore, if one, that, since his conscience was first thoroughly awakened, still resolved to be a Christian, and though he too often broke these good resolutions, never renounced them, but tripped and stumbled in the way to heaven, with-

out quitting his purpose of continuing in it, finds a formidableness in the approach of death ; how uncomfortable must that approach be to those, that have still run on in the ways of sin, without once so much as seriously intending to forsake them ! A youth, free from scandal, and sometimes productive of practices that were somewhat more than negative piety, is not so frequent among those that want not opportunities to enjoy the vanities and pleasures of the world, but that the charity of others, being seconded by that great inward flatterer self-love, made me imagine that I was in a condition fitter to wish for death, than to fear it. But now I come to look on death near at hand, and see beyond the grave, that is just under me, that bottomless gulf of eternity ; methinks it is a very hard thing to be sufficiently prepared for a change, that will transmit us to the bar of an omniscient Judge, to be there doomed to an endless state of either infinite happiness or misery. There is no act of memory like a death bed's review of one's life : sickness, and a nearer prospect of death, often make a man remember those actions, wherein youth and jollity made him forget his duty : and those frivolous arguments, which, when he was in health and free from danger, were able to excuse him to his own indulgent thoughts, he himself will scarce now think valid enough to excuse him unto God, before whom if the sinless angels cover their faces, sinful mortals may justly tremble to be brought to appear. When the approach of death makes the bodily eyes grow dim, those of the conscience are enabled to discern, that, as to many of the pleas we formerly acquiesced in, it was the

prevalence of our senses that made us think them reason; and none of that jolly company, whose examples prevailed with us to join with them in a course of vanity, will stand by us at the bar to excuse the actions they tempted us to; and if they were there, they would be so far from being able to justify us, that they would be condemned themselves.

It is true, Sophronia, if we consider death only as the conclusion of life, and a debt all men, sooner or later, pay to nature; not only a Christian, but a man may entertain it without fear: but, if one consider it as a change, that after having left his body to rot in the grave, will bring his soul to the tribunal of God, to answer the miscarriages of his whole past life, and receive there an unalterable sentence, that will doom him to endless and inconceivable joys, or everlasting and inexpressible torments; I think it is not inconsistent either with piety or courage, to look upon so great a change with something of commotion. Many that would not fear to be put out of the world will apprehend to be let into eternity.

### MEDITATION VIII.

#### *Upon the apprehensions of a relapse.*

I HAVE now, at length, Sophronia, by the goodness of God, regained that measure of health, which makes the doctor allow me to return to my former studies, and recreations, and diet; in a word, to my wonted course of life: so that the physician

having dismissed himself, nothing seems more seasonable and pertinent to my present condition than the advice of our Saviour to the paralytic man, to whom he gave both recovery and an admonition, which, if he obeyed, he found the more advantageous of the two : “ Behold thou art made whole ; sin no more, lest a worse thing come unto thee.” But I am not so free from the apprehensions of an ague, as my friends think me from the danger of it : for having sadly experienced the uneasiness of sickness, I am thereby brought, though at no easy rate, to set a high value upon health, and be a very jealous preserver of so great a blessing. Those petty chills, that formerly I regarded not, but was apt to impute to nothing but fumes of the spleen, or melancholy vapours, are now able to give me alarms, and make me apt to fancy them the forerunners, if not the beginners, of the cold fit of an ague ; the first invasion of the disease having been preceded by the like distempers : and, accordingly, I carefully avoid the least irregularities in point of diet, or of any other kind that may any ways endanger a relapse into the disease that once handled me so ill. But why should I be more apprehensive for my body than my mind ? and if, at any time (as it may too often happen,) any sin should come to be prevalent in my mind, why should I not be solicitously afraid of all the occasions and approaches of it, and tremble at these commotions of the appetite, which would not else perhaps be formidable to me ; in case I have found that such beginnings, indulged or neglected, have ended in actual sin, the real disease of the soul ? As dangerous sicknesses do, for the most part, leave a crazy disposition

behind them, which threatens relapses; so sins, once prevalent, though afterwards suppressed, do yet leave behind them a secret disposition or propensity to the repetition of the same faults: and as it is less difficult to find examples of bodily diseases than of spiritual ones, where the patient is protected from relapses; so I think we should be more watchful against falling back into the sins, than the sicknesses we have once found ourselves subject to, unless we would think that a greater danger, and of a nobler part, deserved less of our care.

### MEDITATION IX.

*Upon his reviewing and tacking together the several bills filled up in the apothecary's shop.*

EITHER my curiosity, Sophronia, or my value of health, has made it my custom, when I have passed through a course of physic, to review the particulars it consisted of; that taking notice by what remedies I found most good, and by what little or none, if I should fall into the like distemper in future, I might derive some advantage from my past experience. In compliance with this custom, as I was this day reviewing and putting together the doctor's several prescriptions sent me back by the apothecary: What a multitude, said I to myself, of unpleasant medicines have I been ordered to take! the very numbering and reading them were able to discompose me, and make me sick, though the taking of them helped to make me well. Certainly if, when I was about to enter into a course

of physic, all these loathsome medicines and uneasy prescriptions had been presented to me together, as things I must take and comply with, I should have utterly despaired of a recovery that must be so obtained ; and should not, perhaps, have undertaken so difficult and tedious a work, out of an apprehension that it would prove impossible for me to go through with it. Thus when a man considers the duties and the mortifications that are requisite to a recovery out of a state of sin into a state of grace, he must be resolute enough, if he be not deterred from undertaking the conditions that piety requires, by so many and great difficulties as will present themselves to his affrighted imagination. But let not this make him desponding ; for it is true, that these discomposing medicines, if I must have taken so much as a tenth part of them in one day, would have either despatched me, or disabled me to endure the taking any the next. But then, although I now see these troublesome prescriptions all at once, I did not use them so, but only took one or two harsh remedies in one day, and thereby was enabled to bear them ; especially being assisted by moderate intervals of respite, and supported both by other seasonable cordials, and by that highest cordial, the hope that the use of these troublesome means of recovery would soon free me from the need of them. Thus, though the hardships of piety are, by the ghostly and carnal enemies of it, wont to be represented to one that begins to grow a convert, as so great and formidable a multitude as to be insuperable ; yet he should consider that though his foresight meet with them all at once, yet he will need to grapple with them but one after an-

other, and may be as well able to overcome a temptation this day, or to-morrow, as he did yesterday. So that to this case also may, in some sense, be applied that precept of our Saviour, not to be solicitous for to-morrow, but to charge no more upon a day than the trouble that belongs to it. And if he considers, too, that, as a wise physician has always a great care that his remedies be not disproportionate to the patient's strength ; and after harsh physic to relieve him with cordials : so God will not suffer those that intrust themselves to him to be tempted above what they are able, but will allow them cordials after their sufferings. If our new convert shall consider things of this nature, he will not be much discouraged by the appearance of difficulties, that will as much ennable and endear his success as they can oppose it ; and he will never despair of victory in an engagement, where he may justly hope to have God for his second, and heaven for his reward.

## THIRD SECTION.

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### REFLECTION I.

*Upon the sight of some variously-coloured clouds.*

THERE is amongst us a sort of vain and flaunting grandees, who, for their own unhappiness and the age's, do but too much resemble these painted clouds; for both the one and the other are elevated to a station that makes most men look upon them as far above them; and their conspicuousness is often increased by the bright sunshine of the prince's favour, which, though it really leaves them creatures of the same frail nature that it found them, does yet give them a lustre and a gaudiness, that much attracts the eyes, and perhaps the envy and respect of those superficial gazers upon things, that are wont to be amused, if not dazzled, with their insignificant outsides. But the parallel holds further; for as, in spite of these clouds' sublimity and conspicuousness, they are but airy and unsolid things, consisting of vapours, and steered by every wind; so the fine people I am comparing them to, in spite of their exaltation, and of all the show they make, are really but slight persons, destitute of intrinsic and solid worth, and guided either by their own blind lusts and passions, or else by interests as fickle as those, to which it will be no addition to

say, or as variable as the wind. And as these clouds, though they seem vast as well as high, and are, perhaps, able for a while to make the sky somewhat dark, have usually but a short duration, and either quickly fall down in rain, or are quite dissipated and made to disappear; so these titled persons, what show soever their greatness makes, do sometimes, either by a voluntary humility and repentance, as it were, descend of their own accord, and, by doing good, endeavour to expiate and make amends for their former uselessness, if not mischiefs; or else, after having been for a while stared at, they do (some more slowly and some more abruptly) vanish, without leaving behind them any thing that can so much as entertain our sight in the very place where before they engrossed it; and this ruin sometimes happens to the most elevated persons, from that very prince, whose favour made them attract so many eyes; as clouds are oftentimes dispersed before night by the same sun that had raised and gilded them in the morning.

## REFLECTION II.

### *Upon his making of a fire.*

How many fruitless blasts have I been spending upon this sullen fire! it was not through the greenness of the wood that made it so uneasy to be kindled, but it was alone the greatness of the logs, on which the fire could take no hold, but through the intervention of such smaller sticks as were at first wanting here: witness that I had no sooner laid

on a little brush-wood, but the flame from those kindled twigs invading and prevailing on the billets, grew suddenly great enough to threaten to make the house itself part of its fuel, and turn it to such ashes as it reduces the wood into. Me-thinks the blaze of this fire should light me to discern something instructive in it. These blocks may represent our necessary, these sticks our less important religious practices, and this aspiring flame the subtile inhabiter of that of hell. It will be but successlessly that the devil can attempt our grand resolves, till he have first mastered our less considerable ones, and made his successes against them not only degrees, but instruments, in the destroying of the others. Our more neglected, and, seemingly, trivial affections, having once received his fiery impressions, do easily impart them to higher faculties, and serve to kindle solider materials. It is, therefore, the safest way to be faithful, even to our lesser determinations, and watchful over our less important passions; and whensoever we find ourselves tempted to violate the former or neglect the latter, not so barely to cast one eye on the inconsiderableness of what we are enticed to, as not to fix the other upon the consequences that may attend it; and therein to consider the importance of what such slighted things may, as they are managed, prove instrumental either to endanger or preserve.

## REFLECTION III.

*Upon my spaniel's carefulness not to lose me in a strange place.*

DURING my stay at home, whilst every body this cur chanced to meet made so much of their landlord's spaniel, that they seemed to have added to oracles that proverb of "Love me love my dog;" the cajoled cur would never keep at home, but, being welcomed to so many places abroad, made me few visits that cost me not the trouble of sending for him; but now that we are in a place where he sees not more men than strangers, he stirs not from my heels, and waits so close and carefully, that it were now more difficult to lose him, than it was formerly to keep him from wandering. Thus doth it generally fare with us! Whilst we are environed with numerous outward objects, which, smiling on us, give our gaddings to them the temptation of an inviting welcome, how inclined are we to forget and wander from our great Master! but when we are deprived of those inveigling courtiers, our Maker too is freed from those seducing rivals, and our undistracted affections are brought to settle on their noblest object, by the removal and the displacing of inferior ones. Lord! when I lose a friend, or any outward idol of my fondness, teach me to leave thee his heir, by taking that loss for a summons to transfer and settle my whole love on thee: and if thou but vouchsafe to make me so happy, I shall think myself enough so,

not to envy him, to whom the loss of his asses proved an occasion of his finding a crown; and shall not so much regret what thy dispensations shall have taken from me, as gratulate to myself their having reduced me unto thee.

## REFLECTION IV.

*Upon his being carved to at a feast.*

THROUGH many hands hath this plate passed before it came to mine! and yet, though I bowed to every one of those that helped to convey it, I kept my chief and solemnest acknowledgments for the fair lady that sent it. Why shouldest thou not, O my soul, instruct thy gratitude to tread in the steps of thy civility? When thou receivest any blessing from "that Father of light, from whom every good and perfect gift comes down," pay a fitting share of thy thanks to them that hand it to thee; but through all those means, look principally to the God that sends it. Let not the pipe usurp upon the spring; (that were as absurd as it were for me to kiss my hand to the plate; or, at best, to those that help to convey it, with a neglect of the lady) but so pay thy due acknowledgments to the reachers, that thou be sure to reserve thy principal thanks and highest strain of gratitude for the Giver.

## REFLECTION V.

*Upon my spaniel's fetching me my glove.*

Poor cur! how importunate he is to be employed about bringing me this glove; and with what clamours, and how many fawnings, does he court me to fling it him! I never saw him so eager for a piece of meat as I find him for a glove; and yet he knows it is no food for him, nor is it hunger that creates his longing for it; for now I have cast it him, he does nothing else with it but (with a kind of pride to be sent for it, and a satisfaction which his glad gestures make appear so great, that the very use of speech would not enable him to express it better,) brings it me back again, as if he meant to show me he desired it not to keep it for himself, but only to have it in his power to return it as a present to his master. But he must not bring me thus an empty glove: it is for thee, my soul, to fill this accident with instruction, by learning from religion as disinterested a behaviour towards God, as nature taught this brute creature towards me. I will, in my addresses for externals, less earnestly implore them for the service they may do me, than for the service I may do God with them; and (as princes' commands are looked upon by courtiers as honours and as favours,) contenting myself with the satisfaction of being trusted and employed by him, I will rejoice at the liberaller expressions of his love, as they may be improved into proportion-

able expressions of mine ; and will beg ne largess of his bounty, without a design of referring it to his glory.

## REFLECTION VI.

*Upon the taking up his horses from grass, and giving them oats before they were to be ridden a journey.*

JUST so does God usually deal with his servants ; when he vouchsafes them extraordinary measures of grace, they are to look for employment that will exercise it, or temptations that will try it. Thus that great “ Captain of our Salvation,” (Heb. xii. 2.) whom the Scripture so much and so deservedly exhorts us to have our eyes on, when, at his solemn inauguration into his prophetic office, the heavens were opened, and the Spirit of God did, in a bodily shape, descend like a dove upon him, accompanied with a heavenly voice, proclaiming him the beloved Son of God, in whom the Father was well pleased : (Matt. iv.) “ then immediately (as St. Mark tells us) Jesus being full of the Holy Ghost (Luke iv. 1.) was led up of the spirit into the wilderness to be tempted of the devil.” That wise and merciful Disposer of all things, who will not “ suffer his children to be tempted above what they are able,” seasonably fortifies them, by these preparatory provisions and consolations, for the labours and difficulties they are to be exposed to. But, whereas, if these horses had reason wherewith to foresee the journey, in order whereunto the pro-

vender is so plentifully given them, they would (if not be troubled with their good cheer) at least lose much of the pleasure of it, by thinking of the labour to ensue—with the servants of God the case is much otherwise; for such is his goodness to those he is pleased thus to deal with, in proposing and reserving them a crown in some sort proportionate to, and yet inestimably outvaluing the toils and difficulties requisite to obtain it; that as advantageous and as welcome as his preparatory vouchsafements can be, the pious soul may well think them less favours upon their own account, than as they enable the receiver to do the more service to the Giver.

## FOURTH SECTION,

WHICH TREATS OF ANGLING IMPROVED TO  
SPIRITUAL USES.

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### DISCOURSE I.

*Upon the being called upon to rise early on a very fair morning.*

THE sun had as yet but approached the east, and my body as yet lay moveless in bed, whilst my roving thoughts were in various dreams, rambling to distant places, when methought I heard my name several times pronounced by a not unknown voice. This noise made me, as I was soon after told, half open my eyes, to see who it was that made it ; but so faintly, that I had quickly let myself fall asleep again, if the party had not the second time called me louder than before, and added to his voice the pulling me by the arm : but though this waked me so far, as to make me take notice that I was called upon to rise ; yet my drowsiness, and my unwillingness to forego a not unpleasant dream, keeping me from discerning distinctly who it was that called me, made me briskly enough bid him, whatever his business were, to let me alone. But though at the same time I turned away my head to shun the light, though dim, which, at the half-opened curtain

shone in upon me ; yet the party, instead of complying with my desires, did, by throwing open the curtains, further let in so much light upon my face, that finding it would not serve my turn to keep my eyes shut, I opened them to see who it was that gave me this unwelcome disturbance. This I had no sooner done, than I perceived that it was Eusebius, who, with Lindamor, and two or three other friends, was come to call me to go a fishing, to a place where, by appointment, we were to meet about sun-rising. The respect I paid Eusebius, and the value I placed upon his conversation, covered me with blushes to be thus surprised by him, and obliged me to satisfy him, as well as I could, how much I was troubled and ashamed to have the favour of his company brought me to my bed-side, when I ought and intended to have waited on him. Thus, whilst I was making him my apologies, and he was pleasantly reproaching me for my laziness, and laughing at the disorder I had not yet got quite out of, I made a shift hastily to get on my clothes, and put myself into a condition of attending him and the company to the river side.

Whilst we were walking thitherward, I was delighting myself with the deliciousness of that promising morning ; and, indeed, the freshness of the air, the verdure of the fields and trees, and the various and curious enamel of the meadows, the music of the numerous birds, that with as melodious as cheerful voices welcomed so fair a morning ; the curious and orient colours wherewith the rising sun embellished the eastern part of the sky ; and, above all, that source of light, who, though he shows us all that we see of glorious and fair,

shows us nothing so fair and glorious as himself, did so charm and transport me, that I could not hold expressing my satisfaction in terms that, Eugenius was after pleased to say, needed not rhymes to make them poetical. The sense of this invited me to add, that I now would not for any thing have missed being waked, and thought myself hugely obliged to Eusebius's freedom, that would not suffer me to sleep out so glorious a morning, nor lose the satisfaction of such desirable company.

Eusebius, who was but a little way off in discourse with Lindamor, overhearing a good part of what I had said, thought fit to walk up towards me, and, addressing himself to me, he told me, " You are unconcerned enough, Philaretus, in what I am about to say, to make it allowable for me to tell Lindamor, that what has this morning happened to you, puts me in mind of what I have several times observed on another occasion : for when a man is so lulled asleep by sensual pleasures, that, like one that sleeps, he has but the faculty, not the exercise of reason, and takes his dreams for realities ; if some serious divine, or other devout friend, concerned for the sinner's soul, or his glory that died to redeem it, endeavour to awaken him, and rouse him out of that state wherein he lies so much at ease ; such attempts are wont at first to be looked upon by the lazy sinner, enamoured of his ease and present condition, but as pieces of unseasonable, if not uncivil, officiousness ; and entertaining the light itself but as an unwelcome guest, he obstinately shuts his eyes against that which alone makes them useful ; and, instead of looking upon the tempter as his friend, he checks him and expostu-

lates with him, and uses him almost as an enemy : insomuch, that too often those that love the welfare of souls too little, or their own ease too much, forego, with their hopes, their endeavours to reclaim him. But if, by God's blessing upon the constancy of this kindness, and the letting in of so much light upon the sinner, that he finds himself unable to continue his slumber any longer with it, he comes to be thoroughly awakened ; he quickly grows sensible that he is brought out of the kingdom of darkness into a true and marvellous light ; and instead of those empty fleeting dreams, which did before amuse and delude him, and which to relish and be fond of, the eyes of his mind must be as well closed as those of his body, he is admitted to noble and manly entertainments, such as reason chooses, conscience applauds, and God himself approves. This change of his condition he finds so advantageous, that he would not for all the world return again to that he was at first so angry to be dissuaded from ; and he does not only forgive, but thank the person that disquieted him, and blushes at the remembrance of his having reduced others to importune him to be happy : and betwixt shame and gratitude, the sense of his present and of his past condition possessing him, he does, perchance, especially in the first fervours of his zeal, think himself as much obliged to his awakener, as Philemon was to St. Paul ; to whom the Scripture says, " that he owed even himself." And sometimes such a new convert as I am speaking of, will think his obligation to the instrument of his change so suitable to the transcendent satisfaction he finds in the change itself, that he would despair of seeing his benefactor sufficiently

recompensed, if he did not remember the saying of the prophet, that “ those who turn others to righteousness shall shine as the stars for ever and ever.” That gives him ground to hope that God himself, whose plenty as well as bounty is unexhausted, will make the recompence of his work. Wherefore,” concludes Eusebius, “ if we chance to have any friends, (as it is odds most men have) who stand in need of this great but unwelcome expression of kindness, let us not too soon be discouraged by finding the effects of our friendship coldly received, and possibly too, looked upon as disturbances: for besides that the less they are desired the more they are needed, a Christian is not bound so much to concern himself in the success of his endeavours, as to leave it in the power of every one that will be obstinate to make him unhappy. When the business one way or other comes to an end, he may miss his aim without losing his labour, since he serves a Master that is ready to reward, as able to discern his intentions; and in case your endeavours do succeed, you will at once make a man your friend, and worthy to be so: and you shall scarce ever find men more affectionate to you, than those you have made your friends by making them enemies to vice.”

## DISCOURSE II.

*Upon the mounting, singing, and lighting of larks.*

THE agreement we had made at our setting forth, that the motion of our tongues should not hinder that of our feet towards the river side, was the cause

that the past discourses not having discontinued our walk, by that time they were ended, we began to traverse certain ploughed lands, that lay in the way betwixt us and the river. But we had scarce entered those fields, when our ears were saluted with the melodious music of a good number of larks, whereof some mounted by degrees out of sight, and others, hovering and singing awhile over our heads, soon after lighted on the ground not far from our feet.

After we had enjoyed awhile this costless yet excellent music, both Eusebius and I chancing to cast our eyes towards Eugenius, observed that his did very attentively wait upon the motions of a lark, that singing all the way upwards, and mounting by degrees out of sight, not long after descended and lighted among some clods of earth, which being of the colour of her body, made us quickly lose sight of her. Whereupon Eusebius, who was full as willing to hear as to speak, and in the occasional reflections that he made was wont at least as much to aim at the exciting others' thoughts, as the venting of his own, begged Eugenius to tell us what it might be, which his attentiveness to the motions of the lark made us presume he was thinking on.

Eugenius, after a little backwardness, which he thought modesty exacted of him, soon answered us in these terms : " Among all birds that we know, there is not any that seems of so elevated, and I had almost said heavenly a nature, as the lark ; scarce any give so early and so sweet a welcome to the springing day ; and that which I was just now gazing on, seemed so pleased with the unclouded light, that she sang as if she came from the place she seemed going to ; and during this charming song,

she mounted so high, as if she meant not to stop till she had reached that sun, whose beams so cherished and transported her: and in this aspiring flight she raised herself so high, that though I will not say, she left the earth beneath her very sight, yet I may say, that she soared quite out of ours. Yet, when from this towering height she stooped to repose or solace herself upon the ground; or else, when to seize upon some worthless worm, or other wretched prey, she lighted on the ground; she seemed so like the earth that was about her, that I believe you could scarce discern her from its clods; whereas other birds, that fly not half so high, nor seem anything near so fond of the sun, do yet build their nests upon trees; the lark does as well build hers on the ground, as look like a part of it. Thus I have known, in these last and worst times, many a hypocrite, that when he was conversant about sublimer objects, appeared, as well as he called himself, a saint; nothing seemed so welcome to him as new light; one might think his lips had been touched with a coal from the altar, his mouth did so sweetly show forth God's praise and sacred dispensations. In sum, take this hypocrite in his fit of devotion, and to hear him talk, you would think that if he had not already been in heaven, at least he would never leave mounting till he should get thither.

" But when the opportunities of advantaging his lower interests called him down to deal about his secular affairs here below, none appeared more of a piece with the earth than he; and he seemed, in providing for his family, to be of a meaner and a lower spirit than those very men whom in discourse

he was wont to undervalue, as being far more earthly than himself."

" Since we know," rejoined Eusebius, " that the best things corrupted prove the worst, it can be no disparagement to piety, to acknowledge that hypocrisy is a vice which you cannot too much condemn; and when the pretending to religion grows to be a thing in request, many betake themselves to a form of religion, who deny the power of it; and some, perchance, have been preferred less for their Jacob's voice than for their Esau's hands. But, Eugenius, let us not, to shun one extreme, fondly run into the other, and be afraid or ashamed to profess religion, because some hypocrites did but profess it! His course is ignoble and preposterous, that treads in the paths of piety, rather because they lead to preferment than to heaven; but yet it is more excuseable to live free from scandal, for an inferior end, than not to live so at all; and hypocrites can as little justify the profane as themselves. It may be, that all who own religion are not pious; but it is certain that he who scorns to own it must be still less so. If scoffers at piety should succeed the pretenders to it, they cannot be said, as sometimes they would be thought, to be an innocent sort of hypocrites, that are better than they seem; for scandal is a thing so criminal and contagious, that whosoever desires and endeavours to appear evil, is so. To refuse to be religious, because some have but professed themselves to be so, is to injure God because he has already been injured. A skilful jeweller will not forbear giving great rates for necklaces of true pearl, though there may be many counterfeits for

one that is not so. Nor are the right pearls a whit the less cordial to those that take them, because the artificial pearls, made at Venice, consisting of mercury and glass, for all their fair show, are rather noxious than medicinal. Indeed, our knowledge that there are hypocrites, ought rather to commend piety to us, than discredit it ; since as none would take the pains to counterfeit pearls, if true ones were not of value ; so men would not put themselves to the constraint of personating piety, if that itself were not a noble quality. Let us then, Eugenius, fly as far as you please from what we detest in hypocrites ; but then let us consider, what it is that we detest ; which being a base, and, therefore, false pretence to religion, let us only shun such a pretence, which will be best done by becoming real possessors of the thing pretended to."

### DISCOURSE III.

#### *Upon fishing with a counterfeit fly.*

BEING at length come to the river side, we quickly began to fall to the sport for which we came thither, and Eugenius, finding the fish forward enough to bite, thought fit to spare his flies till he might have more need of them ; and, therefore, tied to his line a hook, furnished with one of those counterfeit flies, which in some neighbouring countries are much used, and which, being made of the feathers of wild fowl, are not subject to be drenched by the water, whereon those birds are wont to swim. This fly, being for a pretty while scarce any oftener

thrown in, than the hook it hid was drawn up again with a fish fastened to it ; Eugenius, looking on us with a smiling countenance, seemed to be very proud of his success ; which Eusebius taking notice of, " Whilst" says he, " we smile to see how easily you beguile these silly fishes that you catch so fast with this false bait, possibly, we are not much less unwary ourselves ; and the world's treacherous pleasures do little less delude you and me. For, Eugenius," continues he, " as the apostles were fishers of men in a good sense, so their and our great adversary is a skilful fisher of men in a bad sense, and too often, in his attempts to cheat fond mortals, meets with a success as great and as easy as you now find yours. Certainly that tempter, as the Scripture calls him, does sadly delude us, even when we rise at his best baits, and, as it were, his true flies : for, alas ! the best things he can give are very worthless, most of them in their own nature, and all of them in comparison of what they must cost us to enjoy them. But, however, riches, power, and the delights of the senses, are real goods in their kind, though they be not of the best kind : yet, alas ! many of us are so fitted for deceits, that we do not put this subtile angler to make use of his true baits to catch us ! We suffer him to abuse us much more grossly, and to cheat us with empty titles of honour, or the ensnaring smiles of great ones, or disquieting drudgeries disguised with the specious names of great employments : and though these, when they must be obtained by sin, or are proposed as the recompenses for it, be, as I was going to say, but the devil's counterfeit flies : yet, as if we were fond of being deceived, we greedily swallow the

hooks for flies that do but look like such ; so dim sighted are we, as well to what vice shows as to what it hides. Let us not then," concludes Eusebius, "rise at baits whereby we may be sure to be either grossly, or, at least, exceedingly deceived ; for whoever ventures to commit a sin to taste the sweets that the fruition of it seems to promise, certainly is so far deceived, as to swallow a true hook for a bait, which either proves but a counterfeit fly, or hides that under its alluring show, which makes it not need to be a counterfeit one to deceive him."

#### DISCOURSE IV.

*Upon a fish's struggling after having swallowed the hook.*

FORTUNE soon offered Eusebius a fair opportunity to confirm this last part of his reflection ; for he had scarce made an end of it, when a large fish, espying the fly that kept my hook swimming, rose swiftly at it, and having greedily chopped it up, was hastily swimming away with it, when I struck him, and thereby stopped for a while his progress ; but finding himself both arrested and wounded, he struggled with so much violence, that at length he broke my slender line, and carried away a part of it, together with the annexed hook and bait. "If philosophers," says hereupon Eusebius, "be not too liberal in allowing brutes to think, we may well suppose that this fish expected a great deal of pleasure from the bait he fell upon so greedily, and that when once he had got it into his mouth, he might

well look upon it at his own, and those other fishes that saw him swallow it, and swim away with it, did probably envy his good fortune; but yet he does not enjoy his wish, though he seems to have the thing wished for within his power; for by the same action in which he sucked the fly, he likewise took in the hook, which does so wound and tear his tender gills, and thereby put him into such restless pain, that no doubt he wishes that the hook, bait and all, were out of his torn jaws again, the one putting him to too much torment to let him at all relish the other. Thus men who do what they should not, to obtain any object of sensual desires, whatever pleasures they may before-hand fancy to themselves in their success, are oftentimes, even when they obtain their ends, disappointed of their expectations; sometimes conscience, reason, or honour, making them, (even when their desires are not of the worst sort,) do as David did, when he had, more vehemently than became a pious general, longed for water out of the well at Bethlehem, and by the strange venturousness of his bold and affectionate officers, obtained it; yet could not find it in his heart to drink it, but poured it untasted on the ground. But when the things we so long for must be criminally obtained, then it often fares with them as it did with Judas; who, after having betrayed a master, that was incomparably more worth than all the world, and thereby for ever lost himself for a few pieces of silver, seemed to have it in his power, without having it in his will to enjoy them, and in a desperate but not unseasonable fit of anguish and remorse, did, of his own accord, disburthen himself of that money which he had sold his conscience to

get ; so that, though he had what he sought, he had not what he expected : and, when what he had coveted was in his possession, he had the guilt of acquiring it without the power of enjoying it. Even in cases far less heinous," concludes Eusebius, "when men seem to have got what they aimed at, and to have carried it away as their booty, the wound thereby inflicted on injured conscience, puts them to so much deserved pain, that the wishes they are thus criminally possessed of, they do not enjoy, but detest."

## DISCOURSE V:

*Upon a fall occasioned by coming too near the river's brink.*

IT was not long after this, that Eugenius, chancing to spy a little nook, which seemed to promise him a more convenient station for his angling, he invited Lindamor to share the advantage with him, and began to walk thitherward along the river's brink, which the abundant moisture of the waters that glided by it had adorned with a pleasant verdure : but he had not marched very far, when chancing to tread on a place where the course of the water had worn off the bank, and made it hollow underneath, he found the earth faulter under him, and could not hinder his feet from slipping down with the turf that betrayed him : nor could he have escaped so, had not his endeavours to cast the weight of his body towards the bank been assisted by Lindamor, who, though not so near the brink as to be in dan-

ger, was not so far off but that he was able to catch hold of him, and draw him to the firm land. The noise that Lindamor made, when he saw his friend falling, quickly drew Eusebius and me thither; where, after I had awhile made myself merry with the disaster I found to be so harmless, Eusebius, who arrived there a little later, asked him how he came to fall; and Eugenius answering that he thought he trod upon firm ground, because he ~~saw~~ the bank look to the very edge, as if it differed not from the rest of the field which it terminated; Eusebius took occasion from thence to tell him, " You may from this take notice that it is not safe travelling upon the confines of what is lawful and what is sinful, any more than upon the borders of two hostile nations. When we suppose that thus far we may go towards that which is sinful, without committing it, we are wont, with more boldness than considerateness, to conclude that we need not scruple to venture, or rather that we shall run no venture, having firm footing all the way. But it is much to be feared, that when we allow ourselves to come as far as the utmost verge of what is lawful, and to do that which, in the casuist's language, is *tantum non* to sin; the natural proclivity of our minds to evil, which carries them downwards, as weight does our bodies, will, some time or other, make us find hollow ground where we presume to find it firm. He that to-day will go towards sin as far as he thinks he may, is in danger of going to-morrow farther than he should; and it is far more easy for him to feel secure than to be safe, who walks upon the brink of a precipice. He was a wise man that as soon as he had forbidden his son to en-

ter into the path of the wicked, and to go in the way of evil men, subjoins, (as the best course to conform to their prescriptions,) avoid it, pass not by it, turn from it, and pass away : God's indulgence leaves us a latitude to comply with our infirmities and necessities, and to give us opportunities of exercising a pious jealousy over ourselves, and of showing how much we fear to offend him. But a wary Christian will say in this case, as St. Paul did in almost a like, “ all things are lawful for me, but all things are not expedient.” And he must often go farther than he can with prudence, that will always go as far as he thinks he can with innocence.”

## DISCOURSE VI.

### *Upon the good and mischief that rivers do.*

THIS discourse being ended, we all, as it were by common consent, applied ourselves again to prosecute the sport that had invited us to the river : but we had not angled very long, before we were disturbed by a loud and confused noise, which we soon discovered to proceed from a ship, that, together with some barges, and other lesser boats, were, by the help of a favourable breath of wind, sailing up the river towards London. The sight of these laden vessels, together with the prospect of the Thames, which (as it happened in that place) seemed, in various windings and meanders, wantonly to fly, and to pursue itself—this sight, together with that of the rich and flourishing verdure, which the waters in their passage bestowed upon

all the lands that were on either side, any thing near their banks, invited Eugenius to fall upon the praises of that excellent river, which not only imparts fertility and plenty here at home, by enriching all the places that have the advantage to be near it, but helps to bring us home whatever the remoter parts of the world, and the Indies themselves, whether East or West, have of rare or useful.

Lindamor having both applauded and recruited these commendations, “ Methinks,” says he, “ that amongst other good things wherewith this river may furnish us, it may supply us with a good argument against those modern Stoicks, who are wont, with more eloquence than reason, to declaim against the passions, and would feign persuade others (for I doubt whether they be so persuaded themselves) that the mind ought to deal with its affections, as Pharaoh would have dealt with the Jews’ males, whom he thought it wise to destroy, lest they might one day grow up into a condition to revolt from him. But because the passions are sometimes mutinous, to wish an apathy, is as unkind to us, as it would be to our country to wish we had no rivers, because sometimes they do mischief, when great or sudden rain swells them above their banks.”

“ When I consider,” says Eusebius, “ that of the immaculate and divine Lamb himself, it is recorded in the Gospel, that ‘ he looked round about upon certain Jews with indignation, being grieved for the hardness of their hearts;’ so that two passions are ascribed to Christ himself in one verse; and when I consider too, the indifference, and consequently the innocence of passions in their own nature, and the use that wise and virtuous persons

may make of them ; I cannot think we ought to throw away, or so much as to wish away, those instruments of piety, which God and nature have put into our hands. But," continues Eusebius, "as I do not altogether disallow Lindamor's comparison between rivers and the passions, so he must give me leave to add this to it ; that as rivers, when they overflow, drown those grounds, and ruin those husbandmen, which, whilst they flowed calmly betwixt their banks, they fertilized and enriched ; so our passions, when they grow exorbitant and unruly, destroy those virtues, to which they may be very serviceable whilst they keep within their bounds.

" Instances of this truth," pursues Eusebius, "are but too obvious ; our being counselled by the apostle 'to be angry and not to sin,' argues that passion of anger not to be incompatible with innocence, whilst it is confined within the limits of moderation : but when once anger is boiled up into rage or choler with an habitual fury, or appetite of revenge, it makes more havock in the world than beasts and inundations. The greatest part of those rivers of blood that are shed in battles, though spilled by anger, do rather irritate than appease the unnatural thirst of that insatiate fury. I will not tell Lindamor, that even that noblest and best of passions, Love, as gentle and amiable as it appears, when once it comes to degenerate by growing unruly, or being misplaced, is guilty of far more tragedies than those that have the fortune to be acted on theatres, or to furnish the writers of romances ; and that which perchance at first seems to be but an innocent love, being not duly watched and regulated, may, in time, grow to disobey or deceive parents, to violate

friendships, to send challenges, and fight duels, to betray the honour of harmless virgins, to rebel against kings, procure the ruin of monarchies and commonwealths; and, in a word, to make thousands miserable, and those it possesses most of all.

“ And as for the desire of excelling others, as great and noble things as it makes men undertake, whilst it aspires only to a transcendency in virtue and in goodness; when that passionate desire, by making men too greedy of superiority in fame and power, degenerates into ambition, how many vices are usually set to work by this one passion! the contempt of laws, the violation of oaths, the renouncing of allegiance, the breach of leagues and compacts, the murder of one’s nearest relations, (if they be more nearly related to a crown) and all the other crimes and miseries that are wont to beget or attend civil wars, are the usual as well as dismal productions of this aspiring humour in a subject. Nor does it less mischief when harboured in a prince’s breast for the undoing of his own people; and the subversion of his neighbour’s states, the sacking of cities, the slaughter of armies, the dispeopling of provinces, are sacrifices that are more frequently offered up to ambition, than able to satisfy it. For what can quench this thirst of rule and fame, or hinder the attempts to which it stimulates him, who can find in his heart to destroy armies and to ruin provinces, only that he may be taken notice of as being able to do so?

“ Certainly,” subjoins Eusebius, “ he very well knew the frame of human spirits, that said, by the pen of an apostle; ‘ From whence come wars and brawlings among you? come they not hence, even

of your lusts that war in your members?" James, iv. 1. I doubt whether plagues, wars, and famines have done more mischief to mankind, than anger and ambition, and some other inordinate passions; for these do frequently bring upon men those public and other fatal calamities, either as judgments which they provoke God to inflict, or as evils, which, as proper consequents, naturally flow from those mischievous practices, to which unbridled passions hurry the criminally unhappy persons they have enslaved.

"Wherefore," concludes Eusebius, casting his eyes upon Lindamor, "as the usefulness of a river hinders us not from making good the banks, and, if it need be, making dams to confine it within its limits, and prevent its inundations; so the usefulness of the passions should not hinder us from watchfully employing the methods and expedients afforded us by reason and religion, to keep them within their due bounds, which they seldom overflow, without showing to our cost, that, as it is observed of fire and water, they cannot be so good servants, but that they are worse masters."

## DISCOURSE VII.

*Upon the comparing of lands seated at different distances from the river.*

THIS last discourse, to which the river had afforded us the occasion, inviting me to survey as much of it as was within my view a little more attentively, gave me an opportunity of taking notice of a manifest

difference betwixt those lands that lay near it, and those whose situation was remoter from it; and having acquainted Eusebius with what I had observed, which his own eyes could not but bear witness to ; "One" says he, "that should only consider how swiftly this stream runs along these flowery meadows towards the sea, would be apt to conclude, that certainly these grounds retain none of the water which runs from them so hastily and so plentifully, especially since we can see no channels, nor other manifest inlets and receptacles, that should divert and retain the fugitive water. But," continues Eusebius, "though these grounds have not any patent passages, whereby to derive water and fatness from the river, and, therefore, must suffer the greatest part of it to run by them undiverted ; yet still some of the cherishing and fertilizing moisture is from time to time soaked in by the neighbouring ground, and, perhaps, by blind pores and crooked channels so dispersed through the whole fields, that they have thereby water, and, in that vehicle, fertility conveyed to them : which you will not doubt if you do but with me take notice how much the lands, that lie on both sides near the course of the river, are more verdant and flourishing, and more rich, than those less happy grounds, to whom their remoteness denies the advantage of so improving a neighbourhood.

"Thus," resumes Eusebius, "many a pious person, that is an assiduous attendant on the means of grace, and has a care to place himself, as it were, in the way, by which the ordinances of God, especially those of reading and expounding of the Scriptures, are wont freely and copiously to flow,

is, (especially upon any fit of melancholy or distress of mind) apt to be extremely discouraged from prosecuting that course of duties ; and by looking upon the little that he remembers of so many excellent sermons that he has heard, he is often inclined to conclude, not only that he has lost all the good sermons that he has already heard, but that for such as he there is little to be expected from them for the future.

“ But though to lose so much of a thing so precious as the doctrine of salvation, be that which is oftentimes a fault, and always an unhappiness, yet it is a far less mischief to forget sermons than to forsake them : the one may be but an effect of a weak memory, the other is that of a depraved will, perverted by laziness, impatience, or some greater fault. We should scarce allow it for a rational proceeding, if one in a consumption or dysentery, because he grows not fat with feeding, should resolve to renounce eating and drinking.

“ If you but compare these desponding Christians we are considering, with the careless sensualists that fly a rousing sermon, as they should do what it would deter them from, you will easily discern a sufficient disparity between them, to invite you to conclude, that the instructiveness of preaching may, like the moisture of the river, be conveyed, but by little and little at a time, and by unperceived passages, and yet be able to impart fertility : for though much run by, yet, commonly, something will stick ; which we may safely conclude, though we can discern it no other way, that it will disclose itself by the effects. For it is not always to those who remember the most of them that sermons do the most good ;

as water retained in ponds makes not the bottom flourishing, but the banks. The efficacy of a sermon is better collected from the impression it has on the understanding and affections, than from what it leaves on the memory. Whether we retain the particulars faithfully or no, and carry them home with us ; yet if a sermon leave us devouter than it found us ; if we go from God's ordinances with a love to them, and a relish of them, and a purpose to frequent them, we may be despondents, but are not altogether non-proficients. That incorruptible seed by which we are regenerated, being once thrown into an honest heart, may, as our Saviour intimates, grow up we know not well how ; and though, perhaps, by insensible degrees, yet, at length, attain maturity."

" What you have been saying," subjoins Lindamor, when he perceived that Eusebius had done speaking, " suggests to me a reflection, that till now I did not dream of ; and though it differ from that wherewith you have been pleased to entertain us, yet, because it is applicable to the same purpose, and occasioned by the same river, I shall, without scruple, (though after your discourse not without blushes) tell you that it is this : I, among many others who live near it, have often resorted in hot weather to this river, to bathe myself in it ; and, after what I have been hearing, I now begin to consider, that though incomparably the greater part of the river ran by me without doing me any good ; and though, when I went out of it, I carried away little or none of it with me ; yet, whilst I stayed in it, that very stream, whose waters ran so fast away from me, washed and carried off whatever foulness

it might find sticking to my skin ; and besides, not only cooled me and refreshed me by allaying the intemperate heat that discomposed me and made me faint, but also helped me to a good stomach for some while after.

"Thus," resumes Lindamor, "I have sometimes found, that a moving sermon, though it did not find me qualified to derive from it the advantages it questionless afforded better auditors ; and when I went from it, I found I had retained so little of it, that it seemed to have almost totally slipped out of my memory ; yet the more instructive and pathetic passages of it had that operation upon me, as to cleanse the mind from some of the impurities it had contracted by conversing to and fro in a defiling world, without suffering pollutions to stay long and settle where they began to be harboured : besides, I found that a course of such sermons as I have been mentioning, did oftentimes (and if it had not been my own fault, would have always done so) both allay those inordinate heats that tempting objects are too apt to excite, refresh my drooping spirits that continually needed to be revived, and raise in me an appetite to the means of grace, which are piety's true and improving aliments. So that," concludes Lindamor, "though I seldom let sermons do me all the good they may and should, yet I dare not forsake them because I forget them ; since it is to do a man some good to make him less bad than he was, and to give a value and inclination for the means of growing better than he is."

## DISCOURSE VIII.

*Upon a danger springing from an unseasonable contest with the steersman.*

THIS discourse being ended, Eugenius, who was looked upon by us as the most experienced as well as concerned angler among us, descrying at a good distance a place which he judged might be more convenient for our sport than that we were in, where the fish began to bite but slowly; we walked on along the river till he lighted upon a youth, that by his habit seemed to belong to some boat or other vessel; and having inquired of him whether he could not be our guide to some place where the fish would bite more quick, he replied that he easily could, if we would take the trouble of coming to a place on the other side of the river, which his master, who was a fisherman, had baited over night, and would, questionless, let us make use of for a small gratification. Eugenius, being very well content, called away the company, which were led by the youth to a boat belonging to his master, into which being entered, the old man, who was owner of the boat, hoisted up sails, and began to steer the boat with one of his oars to a place he showed us, at a good distance off; but did it so unskilfully, that since a mariner of his age could scarce mistake so grossly for want of experience in the river, we began to suspect that he had too plentifully tasted a far stronger liquor than that which was the scene of

his trade ; and, as the old man was half drunk, so the youth appeared to be a mere novice, both which we had quickly occasion to take notice of ; for some clouds that were gathering out of the sea passing over our vessel, raised in their passage a temporary wind, that to such a slight boat as ours was, might almost pass for a kind of storm ; and then the old man gave his directions so ill, and the youth was so little able to execute them punctually, that two of the company, offended at their unskilfulness, began, by angry and unseasonable expostulations and clamours, to confound the already disordered boatman ; and being got up, with no small hazard to the boat, they would, perchance, by crossing the watermen in their endeavours, have made it miscarry, had not Lindamor, whose travels made him well acquainted with such cases, earnestly requested them to sit still, and let the watermen do their work as well as they could ; affirming that he had seen more than one of those easily overset boats cast away by the confused and disagreeing endeavours of the watermen and passengers to preserve it.

This counsel was thought reasonable, since the greater the wind was, and the less the steersman's dexterity, the more necessary it appeared that we should be orderly and quiet, and by leaning our bodies sometimes one way and sometimes another, as occasion required, do what in us lay to keep the vessel upright : and herein we were so prosperous, that soon after the cloud was passed, and the shower it brought with it was over, the wind grew moderate enough to allow us to make some calm reflections on what had happened. This Lindamor, from the

thanks that were given him for his advice, took occasion to do in these terms: "Since statesmen and philosophers are wont to compare a commonwealth to a ship, I hope the reflection suggested by what has just now happened will be the easier pardoned. The skill of ruling nations is an art no less difficult than noble; for whereas statuaries, masons, carpenters, and other artificers work upon inanimate materials, a ruler must manage free agents, who may have each of them interests or designs of their own, distinct from those of the prince, and many times repugnant to them; and the prizes that are contended for in government, either are, or are thought so valuable, and the concurrents are so concerned, and consequently so industrious to drive on each his own design; that without mentioning any of those many other things which make good government difficult, these alone may suffice to make it more our trouble than wonder, that the rulers of states and commonwealths should oftentimes misgovern them. But the public infelicities of declining states are not always due to the imprudence of the rulers; but oftentimes to those that most resent such imprudency, and by those very resentments increase the public disorders they appear so much troubled at. It may be a question, whether it be more prejudicial to commonwealths, to have rulers that are mean statesmen, or to have a multitude of subjects that think themselves to be wise ones, and are forward to censure what is done by their magistrates, either because it is done by their superiors, or because it is not done by themselves.

" Ordinary men may often think that imprudent,

whilst they consider it only in itself, which its congruity to the rest of the prince's designs may make politic enough; and a private whisper, or the intimation from an unsuspected spy, or an intercepted letter, or divers other things, unperceived by those that are not of the state cabal, may make it wise to do several things, which, to those who look only at the actions without knowing the motives, may appear unpolitic, (and would indeed be so, were it not for these reasons,) which yet ought to be as little divulged as disobeyed. So that the people's forwardness to quarrel with the transactions of their prince, is usually compounded of pride and ignorance, and is most incident to those that do not sufficiently understand either state affairs or themselves; and whilst they judge upon incompetent information, even when their superiors are in fault, they may themselves be so for censuring them.\*

\* This admirable reflection is earnestly recommended to the consideration of our modern statesmen. Mr. Boyle had the misfortune of seeing experimental proof of the dismal effects produced by these selfish motives of action, in the struggle of parties; and though it is reasonable and charitable to suppose, that most men of ambition, in deserting the interests of the public for their own, rely upon the strength of the constitution to carry it through that abuse, as it has through many others; it becomes them, in critical times, not to rely upon that strength too far. Montesquieu, in his *Grandeur et Decadence des Romains*, has a passage not inapplicable as an useful lesson in the present times. He says the two prevailing factions at Carthage were so divided, that the one was always for peace, the other for war; by which means it was impossible for that city to carry on either with advantage: even the common danger was not always sufficient to unite them: if they could but

## DISCOURSE IX.

*Upon the magnetical needle of a sun-dial.*

WE had not yet dismissed the waterman, when Eugenius, chancing to express a curiosity to know what o'clock it was, when we had freshly begun to angle at a new station, as Lindamor and the rest drew their watches to satisfy his question, so the boatman took out of his pocket a little sun-dial, furnished with an excited needle to direct how to set it: such dials being used among mariners, not only to show them the hour of the day, but to inform them from what quarter the wind blows. Upon the sight of this dial, my natural curiosity invited me, after it had told the hour, to try whether the magnetic needle were well touched, by drawing a little penknife out of a pair of twises I then chanced to have about me, and approaching it to the north point of the needle, which, according to the known custom of such needles, readily followed it, or rested over against it, which way soever I turned the penknife. Eusebius, seeing me give myself this diversion, came up to me to be a sharer in the sight, which no familiarity can keep from being a wonder. But after a while, he looked upon it in a way that made me think it presented him somewhat else than the hour of the day, or the corner of the wind; and I was confirmed in that

gratify their private interests and passions, they regarded not the public.

thought by seeing him apply to it the case of Lindamor's watch, and then a diamond ring plucked from his own finger. Its effect he soon began to tell me : " Methinks, Philaretus, this needle may afford us a good direction in the choice of company ; and that is a matter of much moment : for not only has it been truly observed, that the choice of one's company does exceedingly discover whether a man be good or bad, wise or foolish ; but I shall venture to add, that it does very much contribute to make him what others say it declares him : for an assiduous converse does insensibly dispose and fashion our minds and manners to a resemblance with those we delight to converse with ; and those are few that have so much resolution as to disobey customs and fashions, especially when embraced by people we love and would be esteemed by, and from whose opinions and practices we can scarce dissent constantly, without impressing a dislike that threatens to make them dislike us." " For my part," says Lindamor, " I have always thought there is a great difference betwixt keeping company with some men, and choosing to do so ; for whilst we live in this world, we must often have to do with the lovers of the world ; but though to be cast by the exigencies of our calling upon bad company, be an infelicity, without being a fault ; yet, certainly, to choose such company, and prefer it before that of wise and good men, is, in a high degree, both the one and the other ; and I confess," continues he, " I cannot think that the proper use of conversation is but to pass away our time, not to improve it."

" You are certainly much in the right," subjoins Eusebius ; " for though too many of those that are

now cried up for good company, do either so dissuade us from good and serious things, or so divert us from them, that it is oftentimes counted a piece of indiscretion to say any thing that may either enrich men's understandings or awaken their consciences ; yet I cannot but think that conversation may be, as well as ought to be, rescued from being an instrument to promote idleness and vice : and if men were not wanting to themselves, I doubt not it may be so ordered, that conversation, which so often robs men of their time, and so frequently of their devotion, might be made a great instrument of piety and knowledge, and become no less useful than it is wont to be pleasant."

" To make companies" replies Lindamor, " such as you think they may be, they must grow very different from what they most commonly are ; for not to speak of those loose and profane ones, where virtue and seriousness are openly derided, and any thing, how contrary soever to piety or right reason, may be used, not only with toleration, but applause, if men can but bring it out, I say not in jest, (for they are seldom more in earnest) but neatly wrapped up in raillery ; even in those civiller sorts of company, where vice is not professedly maintained, you shall seldom, during a long stay, hear any thing that is really worth carrying away with you, or remembering when you are gone. To discourse of any thing that is grave enough either to exercise men's intellects or excite their devotion, is counted a piece of indiscretion ; so that even in such companies, the innocentest use that we are wont to make of our time, is to lose it : and, really," continues Lindamor, " when I consider how ensnaring the

worser sort of companies are, and how little, even those who do not openly defy piety and knowledge, are wont to cherish either of them; I begin to be reconciled to hermits, who fly into those solitudes, where they are not like to be tempted either to renounce their devotion or to suppress it, to entertain idle thoughts or suppress good ones. Nor could I, without much scruple as well as impatience, allow myself to spend some part of my time in such kind of entertainment as they spend most of theirs in, were it not that, looking upon civility as a virtue, and hospitality as, in some cases, a duty, and upon both of them as things of good report; I can think those hours they make one spend, may be justly cast to their accounts; so that the duty of exercising civility makes me look upon as justifiable, though unpleasant, those expressions of it, which, in themselves considered, I could not reflect upon without indignation, and could not but think very much below any man, whom education has fitted for the exercise of reason, or whom religion has elevated to the hopes of heaven."

"But it may," says Eusebius, "on the other side, be represented, that since it is scarce possible not to meet sometimes with companies that are not of the best sort, we should look upon those necessities as calls of Providence, to improve those opportunities for the advantage of them we are engaged to converse with: for nature, as well as Christianity, teaches us, that we are not born only for ourselves; and therefore, as we ought to converse with the best men, to acquire virtue and knowledge, so we must sometimes converse with others, that we may

impart them : and though we do not find that our conversation does immediately and visibly reform those we converse with, yet it will not follow, that it is altogether ineffectual on them ; for besides that the seeds of virtue and knowledge, as well as those of plants, may long seem to lie dead, even in those soils wherein they will afterwards flourish and fructify ; there may be at present a good, though not a conspicuous effect, of your discourse and example.

" And trust me, Lindamor, it is no such useless performance as you may think it, for a man of known piety and parts, by conversing with the children of this generation, to dare to own religion among those who dare deride it ; to keep alive and excite a witness for God and good things in their consciences ; to let them see, and make them (at least inwardly) acknowledge the beauty of a pious, industrious, and well ordered course of life ; to convince them that it is not for want of knowing the vanities they dote on, that he despises them ; to show that a man who denies himself their sinful jollities can live contented without them ; and to manifest, by a real and visible demonstration, that a virtuous and discreet life is no unpracticable, no more than a melancholy thing, even in bad times, and among bad men.

" And," says Eusebius, " to me it seems very considerable, that our Saviour himself, the great author of our faith and exemplar of our piety, did not choose an anchorite's or a monastic life, but a sociable and affable way of conversing with mortals ; not refusing invitations even from publicans, or to weddings : and by such winning condescen-

sions gained the hearts, and thereby a power to reform the lives of multitudes of those he vouchsafed to converse with.

"Other considerations," pursues Eusebius, "might be represented to the same purpose with these; but I will tell you in few words, that though it is possible for men of radicated virtue and fine parts to make sometimes a good use of bad company, especially when their lawful occasions cast them into it; yet for others to be often engaged in such company, though it be but an infelicity, is a very great one; and to choose such company, is worse than an unhappiness—a fault. Generally speaking, I would distinguish three sorts of companies: there are some that are not only unable to improve me, but are unwilling to be improved themselves; a second sort there is, that are as well ready to learn as able to instruct; and there are others, who, though they are not proficients enough to teach me things worth learning, are yet desirous to be taught by me the little that I know, and that they know not. Now, as the magnetic needle we were looking at, and which affords us the stream of this discourse, if you should apply a loadstone to it, would be most powerfully attracted by that, because it can receive fresh virtue from it; and even if you approach a piece of steel to it, the needle will, though not so studiously, apply itself to it; but if you offer it the silver case of your watch, or the gold that makes up your ring, or the diamonds that are set in it, none of all these, how rich and glittering soever, will at all move the needle, which suffers them to stand by unregarded—so I shall, with the most of cheerfulness and application, seek the com-

pany of those that are qualified to impart to me the virtue or the knowledge they abound with: nor shall I refuse to entertain a society with those few, who being such small proficients as to need to learn of me, are also forward to do so. But those who can neither teach me any thing that is good, nor are disposed to let me teach it them, how great show soever they make among those that make choice of their companies by their eyes, I may be cast upon their conversation, but I shall very hardly choose it."

## DISCOURSE X.

### *Upon one's talking to an echo.*

WE had, possibly, dwelt longer upon such reflections, had I not been suddenly diverted by the repeated clamours of a voice which each of us imagined he had very often heard: whereupon, as it were by common consent, we began to look round about us, to see if any of our little company were missing; and finding that Eugenius was so, we readily concluded that voice we heard, though somewhat altered by distance, to be his. Accordingly, we hastened towards the place whence we judged the voice to proceed, that in case he were in any distress, or had met with any disaster, we might rescue or relieve him: but when we came near, we could now and then distinctly hear him speak some words so loud and yet so incoherent, as if he meant all thereabouts should hear him, and nobody understand him. This made us double our curiosity and our pace; till at length we

described him all alone in a solitary corner, wherein yet his loudness kept us from believing he sought privacy : but as soon as he discovered us, he seemed both surprised and troubled at it, and coming to meet us, he first begged our pardon, if, having been louder than he thought, he had put us to a trouble he did not intend ; and then, laughing, he asked us if we did not think him mad ? But Eusebius, smiling, told him, that before we could answer that question, we must ask one of him, which was, what he had been doing. “ Whilst you,” answers Eugenius, “ were, I doubt not, better employed, my curiosity seduced me to spend some time in ranging about the places near the river side ; and as I was passing by this field, the accidental lowing of an ox made me take notice that this neighbouring hill and wood furnish this place with an excellent echo, which I, at first, tried only by whooping and hollowing ; but afterwards diverted myself by framing my questions so as to make that babbling nymph to discourse with me.”

“ For my part,” says Lindamor, “ I should by no means like her conversation, because she has two qualities, which to me would very much discommend it. One of them is, that she vouchsafes to discourse indiscriminately with all comers that talk to her, provided they make noise enough.”

“ You are much in the right,” says Eugenius ; “ for that easiness of admitting all kind of company, provided men have boldness enough to intrude into ours, is one of the uneasiest hardships (not to say martyrdoms) to which custom has exposed us, and does really more mischief than most men take notice of ; since it does not only keep impertinent

fools in countenance, but encourages them to be very troublesome to wise men. The world is pestered with a certain sort of praters, who make up in loudness what their discourse wants in sense ; and because men are so easy-natured as to allow the hearing to their impertinences, they presently presume that the things they speak are none : and most men are so little able to discern in discourse betwixt confidence and wit, that, like our echo, to any one who will but talk loud enough, they will be sure to afford answers : and, which is worse, this readiness to hazard our patience, and certainly lose our time, and thereby encourage others to multiply idle words, is made by custom an expression, if not a duty of civility ; and so even a virtue is made accessory to a fault." "But," subjoins Lindamor, "I remember I told you there was a second quality that I disliked in the nymph I found you entertaining, and that is, that when I will I can make her speak to me just what I please." "I know," replies Eugenius, "that a moderate degree of complaisance, is not only, in many cases, allowed us by discretion, but is necessary to keep up the pleasantness, not to say the very peace, of human societies ; for if all men, at all times, spake their minds freely, and did not soften one another by concealing their mutual dislikes and dissents by certain outward expressions of kindness or respect, made by compliments and gestures ; men have so many imperfections, and withal so much self-love, that scarce any two of them would endure one another. Nay, in spite of that indulgence which provident nature has implanted in all animals for the preservation of their species, yet I doubt we shall scarce find one

man of a thousand, that could endure so much as himself, if we did not, for the most part, exercise complaisance within our own breasts, and did not as much flatter ourselves, and disguise ourselves to ourselves, as we flatteringly disguise ourselves to others.

"But," continues Eugenius, "when all this is said, I may endure, but I shall scarce choose and prize a companion, who, like an echo, uses no liberty of his own, but allows me to direct whatever I would have to be answered me; and I know not whether I could not like better one that would ever dissent from me, than one who would never do so. I cannot look upon him either as my friend, or as a person worthy to be made so, who never evinces his being more concerned to advantage me than to please me, by making use of the liberty of a friend, and thereby showing that he considers not barely himself, but me."

Eusebius, who was a friend to seriousness, without being an enemy to pleasantness, gathering from the long pause made by his friends, that they designed not the prosecuting this discourse any farther; "Methinks, gentlemen," says he smiling, "you are very severe to a harmless nymph, who is so modest and reserved, that she will never put you upon beginning a conference with her, and so complaisant in it, that it is your own fault if ever she says any thing to you that displeases you. For my part," continues he, "I have that opinion of human things, that as I think there are very few so perfect, but that we may find something in them fit to be shunned; so there are not many so imperfect, but that they may suggest to us somewhat or other that

may not be unworthy of our imitation ; and as Lindamor has taken notice of two qualities in our echo, which discommended it to him, so I have observed as many that I rather approve than dislike.

" For, in the first place, it is evident that our nymph (however Eugenius has been pleased to miscall her a babbler,) is much less talkative than most of her sex, or of ours ; for she never begins to talk with any body, not speaking unless she is spoken to. He that considers how much of the discourse that wastes man's time, and entertains the company with the most applause, consists of talk that tends either to flatter those who are present, or detract from the absent, or to censure our superiors or our betters, or to express our own profaneness, or to excite the pride or carnality of others ; and that though, by these and many other ways, we are extremely apt to offend in words, yet we must give an account of our idle words ; and that the Judge himself tells men, that they shall by their words, as well as their actions, be justified or condemned—will easily believe, that if silence were as much in fashion as it is charitable to mankind to wish it, the regions of hell would be far thinlier-peopled than now they are like to be.

" I could tell you that silence discovers wisdom and conceals ignorance ; and it is a property that is so much belonging to wise men, that even a fool, when he holdeth his peace, may pass for one of that sort ; and I could easily add I know not how much, in commendation of this excellent quality, if I knew how, at the same time, to praise silence and to practise it. So that it may well pass for an excellency of the nymph, whose apology I am making, that

she does not speak but when she is spoken to. But these are not all the good qualities of our echo; for she seldom repeats above a small part of what is said to her: this I account a seasonable piece of discretion, especially in such treacherous and fickle times as ours, where, almost as if he thought himself fit to be an universal statesman, such an one concerns himself very needlessly for all the public quarrels in Christendom, and shows himself zealous for a party which will receive no advantage by his disquiets: and in our fatal differences, he will, on needless occasions, declare, with his opinion, his want of judgment; and perhaps ruin himself with those under whose protection he lives, by spreading reports and maintaining discourses that render him suspected among those, who think that a man must wish their forces beaten if he can think they may have been so. Nay, I have known some, that though put into considerable employments, could not hold talking of their own party at a rate of freedom, which those who have so much innocence as not to deserve it will scarce have so much goodness as to support it. So that, methinks, these men deal with their fortunes as children oftentimes do with their cards; when, having taken a great deal of pains to build fine castles with them, they themselves afterwards ruin them with their breath.

" It may be a greater, without being a more prejudicial piece of folly, to believe all that one hears, than to report all that one believes; for though those kind of men make sure, by their way of talking, to make others take notice how much they are confided in by their party; yet, sure, they would take

a discreeter course, if they did but consider that the proof they give that they are trusted with secrets, is that they are unfit to be so."

## DISCOURSE XI.

*Upon one's drinking water out of the brim of his hat.*

WE were by this time come back to the baited places we had left ; when Eugenius, to whom his rambling up and down had given a vehement thirst, spying a place where the banks were low, and almost level with the surface of the water, left us for a little while to repair thither ; and kneeling upon the ground, he took up with his hat (which, by cocking up the brims, he turned into a kind of cup) such a proportion of water, that he quenched his thirst with it ; and carelessly throwing the rest upon the ground, quickly returned towards the company, which he found he had not left so silently, but that our eyes had been upon him all the while he was absent : and Eusebius took occasion to tell us, our friend Eugenius, might, if he had pleased, by stooping lower with his head, have drank immediately out of the entire river ; " But you see he thought it more safe and more convenient to drink out of a rude extempore cup ; and that this way sufficed him fully to quench his thirst, we may easily gather, by his pouring away some remaining water as superfluous.

" Thus," continues Eusebius, " to a sober man, provided he have a competency of estate suited to his needs and condition, it matters not very much,

whether that competency be afforded him by a moderate or by an exuberant fortune ; and oftentimes it is more safe and convenient, and no less satisfactory, to receive this competency out of that which is but a little, than out of that which is a great deal more than enough.

" For not only the necessities of nature are few, but her capacities are limited. Therefore, how much soever you have of meat, and drink, and the like accommodations, the body of a man can enjoy but a certain, and that too no very great measure of them, proportioned to the cravings of our stinted nature ; by more than which it is not the body, but the unruly fancy that is gratified : as when the stomach is satisfied, a table full of untouched dishes feeds but a man's eye or his pride ; and if he should cram a little part of it into his stomach, it would but be nauseated at first, and afterwards breed ill humours and diseases. Accordingly, it is no less than Solomon who says, ' When goods increase, they are increased that eat them ; and what good is there to the owners thereof, saving the beholding them with their eyes ? ' I dare not absolutely," pursues he, " condemn those that think not the necessities of nature the only measures of a competency of fortune : for though he that wants not them, has no cause to quarrel with Providence ; yet custom has so entailed some ways of expense upon some stations in the world, that since a man can scarce live without them without disgrace, there are but few who do not think that what is more than enough for one may be less than enough for another. But," subjoins Eusebius, " he that has, in this liberal sense, a sufficiency of outward goods,

is, methinks, but ill advised as well as unthankful, if he repine at his portion, because it is inferior to that of the famously rich : for though an unwieldy affluence may afford some empty pleasure to the imagination, yet that small pleasure is far from being able to countervail the imbittering cares that attend an overgrown fortune. Whatever the unexperienced may imagine, the frequent and sad complaints of the rich themselves sufficiently manifest, that it is but an uneasy condition that makes our cares necessary for things that are merely superfluous ; and that men, whose professions are so much spread and displayed, are but thereby exposed the fairer and wider marks, that may be hit in many places by misfortune."

" For my part," says Lindamor, " I do the more wonder to see men so greedy of lading themselves, as the Scripture speaks, ' with thick clay,' that they hoard up their treasures from those uses which alone make riches worthy the name of goods ; and live by a temper quite contrary to that of St. Paul, ' as having all things, and possessing nothing,'—when I consider the things they pretend to by this as mean, as unchristian appetite : the two chief of these are wont to be, the keeping of a great house, and the leaving their children great matches. As to the former, though others are too much advantaged by it not to extol it ; and though it be sometimes, indeed, and, in some cases, a decent and almost necessary piece of greatness ; yet, it is, in my opinion, one of the unhappy attendants that retain to it ; for the laws of hospitality, and much more those of custom, turn him that keeps a great table into an honourable host, subject him to comply with the

various and oftentimes unreasonable humours of a succession of guests, that he cares not for at all, and that care as little for him : it brings him in a world of acquaintance, to whom he must own himself obliged, because they come to eat his meat ; and he must really requite them by giving them the宝贵est thing he has to part with, his time ; and a full table, together with the liberties that custom allows at it, if not exacts there, tempt him both to indulgence to his appetite prejudicial to his health ; and if they do not prevail with him to speak, do often at least dispose him to hear and to connive at such free discourses as are prejudicial to his interests : so that there is more than one account, upon which a great entertainer may find his table become his snare. And, for the design" continues Lindamor, " of laying up vast estates for a man's children ; if they be sons, he thereby but increases the temptation to wish their father dead, and provides incentives to their vice, and fuel for their excesses, when he is so ; and if they be daughters, how many unhappy young women have we seen, who, upon the score of the vast portions left them by their parents, have been betrayed and sold by their guardians, or by those relations that should have been their friends ? And how often have we also seen, that an unwieldy fortune has been so far from purchasing the heiress to it a good husband, that it has procured her a bad one, by making her think herself obliged and qualified to match with some high title, and procuring her to be haunted by some, whose vices, perhaps, alone have reduced him to sell himself to redeem his fortune, and to make an address which aims but at the portion, not the

person ; and, accordingly, when he has got the one he slighted the other, and despises her for the want of that high extraction she prized in him ; and, perchance, hates her too for confining him from some former, and more than pretended passion."

" I perceive, then, Lindamor," says Eusebius, " that you are, as well as I, disposed to think him not a mere fool who prayed God to ' give him neither poverty nor riches, but to supply him with things suitable to his condition ; ' (Prov. xxx. 8.) a pinching poverty and a luxuriant fortune (the different extremes) being liable to almost equal inconveniences, and a competency affording us enough to engage us to thankfulness, without administering such temptations to sensuality and pride."

## DISCOURSE XII.

*Upon the sports being interrupted by rainy weather.*

NOTWITHSTANDING the serenity and promisingness of the morning we came out in, we have already upon the water had one proof of the unsettledness of the weather, and now upon the land we meet with another : for by that time Lindamor and Eusebius were come somewhat near the end of their discourse, they were obliged to hasten to it by the approach of a cloud, whose largeness and blackness threatened us with an imminent shower. Nor did it give us a false alarm ; for by that time we could recover the next shelter, the shower we fled from began to fall violently enough upon the

trces we were retired to. This unwelcome accident reducing us all to look about us, we quickly saw, to our grief, that not only the rain, but the clouds were increased, and the sky, being almost every where overcast, left us no way to escape the inconvenience it threatened us with, but the making, with what haste we could, towards the place, over which we perceived smoke enough to conclude there was some village beneath it: and finding, at our arrival thither, as good an inn as we could reasonably expect in such a place; after we had awhile dried ourselves by the fire, Eugenius (to whom exercise and the time of day had given a good stomach,) moved the company, that in spite of the meanness of the house, we might rest ourselves there, till we had dressed the fish we had taken, to make up the best dinner the place could afford. This motion I did not only readily assent to, but seconded it, by representing, that probably, by that time we had dined, we should either recover some fair weather, or lose the hopes of regaining it for that day; to which I added other considerations to persuade the company; though that, indeed, which prevailed with me, was the expectation of having an opportunity, while dinner was providing, to set down in short hand, as I soon after did, what I have hitherto been relating, lest either delay should make the particulars vanish out of my memory, or they should be confounded there by the accession of such new reflections as (in case a fair afternoon should invite us to return to the river,) Eusebius would probably meet with occasions of presenting us. But before I could handsomely slink away, I happened to be entertained

awhile with some things of the like nature with those I was about to set down : for this unwelcome change, after so glorious and hopeful a morning, did naturally suggest to all of us some thoughts of the mutability and fickleness of prosperity, and how easily, as well as quickly, we may be deprived of what we cannot easily part with. Whilst the rest of us were entertaining ourselves with these thoughts, Eugenius, who was more concerned than any other of us for the sport he came for, having a good while, with melancholy eyes, looked upon this change, began to repine and murmur at the interruption which the persisting rain continued to give him in it : whereupon Lindamor took occasion to say, “ For my part, if I could dissipate these clouds with a wish, I should scruple at the ridding myself of them, even at so easy a rate ; for I see that the gaping clefts of the parched ground do, as it were with so many mouths, proclaim its need of the rain you repine at. I always” continues he, “ am ready to join with the husbandman in his wishings, as well for rainy as for fair weather ; and I am so much a commonwealth's-man, that I had rather at any time not escape a shower than let him want it.”

“ You are, I confess,” says Eugenius, “ now I think a little better of it, in the right, and have more reason to be discontented at my impatience than I at the weather ; for we should, even on lesser occasions as well as on greater, exercise self-denial, and prefer a public good to our private conveniences : and, indeed, it were far better that I should miss some fishes, than that thousands of families should miss of bread.” Eusebius, who

had hitherto listened to what was said, being unwilling his friend should any longer accuse himself, told him (to divert the discourse,) " This accident, Eugenius, was suggesting to me a thought, wherewith I shall not scruple to acquaint you and the company. For," continues he, " as pleasant and as much desired as fair weather is wont to be, and as much as we use to be discontented at a lowering and dropping sky, yet the one is no less necessary and useful in its season than the other. For too uninterrupted a course of heat and sunshine would make the season fruitful in nothing but in caterpillars or such kind of vermin, and in diseases; and is far more proper to fill graves than barns: whereas, seasonable vicissitudes of clouds and cloudy weather make both the ground fruitful and the season healthful. Thus, in our outward condition, too long and constant a prosperity is wont to make the soul barren of all, but such wantonnesses as it is ill to be fruitful of; and the interposition of seasonable afflictions is as necessary and advantageous as it can be unwelcome. But," pursues Eusebius, " the consideration that chiefly entertained me, was this: that as here, to make the earth fruitful, the face of heaven must be now and then obscured and overcast, and we must be deprived of the welcome pleasure of the sun, to receive the fertilizing benefit of the rain; so, such is our condition here below, that our perverseness makes it necessary that God should oftentimes appear to frown upon us, to make us fruitful in those works to which he is pleased to vouchsafe his smiles. But oh!" concludes Eusebius, lifting up his eyes towards heaven, " how happy shall we be in

that glorious and everlasting day, when our condition shall be as blessed, in not requiring vicissitudes, as not being subject to them; when the sunshine alone shall perform all that is wont to be done here both by it and by the rain; and the soul, like Egypt, being fruitful without the assistance of clouds, we shall not need to have our joys eclipsed to have our graces kept from being so, or to make our light shine the brighter; when we shall not need to have our love weaned from inferior or undue objects by any experience of their imperfections, since the clear discovery that God will vouchsafe us of his own excellencies will abundantly suffice to confine our affections to them. And as the works wherein we are to be fruitful in heaven will be but to admire and thank him that is infinite in beauty and in goodness, the perfecter sight and fruition we shall have of his astonishing as well as ravishing attributes, will but proportionably increase our wonder and our praises, and will naturally make us as grateful for such a state as happy in it.

## FIFTH SECTION.

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### REFLECTION I.

*Killing a crow (out of a window) in a hog's trough, and immediately tracing the ensuing reflection with a pen made of one of his quills.*

LONG and patiently did I wait for this unlucky crow, wallowing in the sluttish trough, (whose sides kept him a great while out of the reach of my gun,) and gorging himself with no less greediness than the very swinish proprietaries of the feast; till at length, having guzzled and croaked enough, when, by hovering over his beloved dainties, he had raised himself high enough to prompt me to fire at him, my no less unexpected than fatal shot in a moment struck him down, and, turning the scene of his delight into that of his pangs, made him abruptly alter his note, and change his triumphant chant into a dismal and tragic noise. This method is not unusual to divine justice towards brawny and incorrigible sinners, whose souls, no less black than this inauspicious bird's feathers, do wear already the livery of the prince of darkness, and with greediness do the works of it; whose delights are furnished (as the feasts of crows are by carrion) by their own filthy lusts, or other people's faults; and who, by the

oaths and curses wherewith they offend Christian ears while they live, and by the ill odour they leave behind them when they are dead, do but too much justify my resembling them to these hateful creatures.

Such sensual and obdurate epicures God oftentimes suffers to run on their long career in paths of their own choosing, without checking them in the fruition of those joys which are to be their only portion, till, at length, "their iniquity filling up the determinate measure," he cuts them off in the height of their enjoyments; and employing oftentimes their own sins for their executioners, he precipitates them headlong from the pinnacle of their delights, into the bottomless pit, which one of their predecessors (the rich man in the parable) called, as he sadly found it, the "place of torment," where the luscious sweets of sin are so dearly reckoned for, that their sense sadly convinces them of (what their sensuality kept them from believing) the folly of gaining any thing at the rate of losing their own souls. Thus the insolent Philistines found themselves ill protected by their vainly celebrated god and his much stronger temple, though in the latter there were thousands of them, without any enemy but one that they had sent for to be a friend to their mirth: for in the very midst of all the triumphs of a solemn festival, whilst they were insulting over captive Samson's blindness, they could not see their own approaching destiny, though it were then so near that the next fit of laughter had not time to pass their mouths, ere an unexpected vengeance (the provoked Deity lending an omnipotent arm to Samson's hand) confounded in one

ruin the idol with the worshippers, and suddenly turned the whole temple into an altar, with which the priests themselves fell surprised sacrifices to that tragical solemnity. Thus the revelling Belshazzar, in the midst of his magnificent and royal feast, saw an intruding hand, which, by its manner of appearing, as well as by what it wrote, was able to mar the supper, without impairing the dainties: and that monarch, whom even a siege could not reduce below a condition of feasting, though he were carousing in the consecrated cups, had such a brimmer of trembling put into his hand, as both presaged, and, perchance, began, the destiny approaching him under the designs of the noble Cyrus, whose conquering sword, guided by Providence, and made the sword of justice, did, that very same night, let out his wine, and blood, and life together.

## REFLECTION II.

*Upon the same subject.*

IT is hard, upon such an occasion, to avoid making some reflections upon the mutability of worldly conditions. How little did this crow imagine, a quarter of an hour since, that in so short a time his body should be as senseless, and as stinking carrion, as that he was wont to feed it with; that his feathers should wear so unlucky a kind of mourning for his destruction; and that I should write his epitaph with one of his own quills! sure, since a few minutes can turn the healthiest bodies

into breathless carcasses, and put those very things, which we had principally relied on, into the hands of our enemies, it were little less than madness to repose a distrustless trust in these transitory possessions, or treacherous advantages, which we enjoy but by so fickle a tenure. No; we must never venture to wander far from God, upon the presumption that death is far enough from us; but rather, in the very height of our jollity, we should endeavour to remember, that they who feast themselves to-day may themselves prove feasts for the worms to-morrow.

### REFLECTION III.

*Upon hearing a lute first tuned, and then excellently played on.*

THE jarring strings made so unpleasant a noise, while the instrument was tuning, that I wonder not at the story that goes of a grand signor, who, being invited by a Christian ambassador to hear some of our music, commanded the fiddlers to be thrust out of his seraglio, upon a misapprehension that they were playing when they were but tuning: but this rare artist had no sooner put an end to the short exercise he gave our patience, than he put us to the exercise of another virtue; for his nimble and skilful fingers made one of the innocentest pleasures of the senses to be one of the greatest, and this charming melody (for which Orpheus himself might envy him) does not so properly delight as ravish us, and renders it difficult to moderate the

transports of our passions, and impossible to restrain the praises that express our satisfaction. So that if this musician had been discouraged by the unpleasant sounds that were not to be avoided, whilst he was putting his lute in tune, from proceeding to his work, he had been very much wanting to himself; and, to save a little pains, had lost a great deal of pleasure and applause.

Thus, when the faculties and passions of the mind, either through a native unruliness, or the remissness of reason and conscience, are discomposed, he that attempts to bring them into order, must expect to meet, at first, but an uneasy task, and to find the beginning of a reformation more troublesome for the time than the past disorders were. But he is very little his own friend, if he suffers these short-lived difficulties to make him leave his endeavours unprosecuted; for when once they have reduced the untuned faculties and affections of the soul to that pass which reason and religion would have them brought to, the tuned and composed mind affords a satisfaction, whose greatness does even at present abundantly recompense the trouble of procuring it, and which is yet but a prelude to that more ravishing melody, wherein the soul (already harmonious within itself) shall hereafter bear a part; where the harps of the saints accompany the glad voices that sing the song of the Lamb, and the hallelujahs of the rest of the celestial choir.

## REFLECTION IV.

*Upon being presented with a rare nosegay by a gardener.*

*Lindamor.* Here is indeed a present for which I must still think myself this fellow's debtor, though he thinks I have overpaid him. It is pity these rarities were not more suitably addressed, and worn by some of nature's other master-pieces, with whom they might exchange a graceful lustre, and have the ornament they confer reflected back upon them. But one who had never been a lover would perhaps say, that that wish were more civil to the flowers than to the ladies, of whom there are few which these soft polished skins, and orient tinctures, would not easier make foils than prove such to them. For (not to name the rest) this lovely fragrant rose here wears a blush, that needs not do so at any colour the spring itself can, amongst all her charming rarities, show. Yes, here are flowers above the flattery of those of rhetoric; and besides two or three unmixed liveries, whose single colours are bright and taking enough to exclude the wish of a diversity, here is a variety of flowers, whose dyes are so dexterously blended and fitly chequered, that every single flower is a variety. I envy not Arabia's odours, whilst that of this fresh blusher charms my sense; and I find my nose and eyes so ravishingly entertained here, that the bee extracts less sweetuess out of flowers. Surely this

gardener leads a happy life! he inherits nothing of Adam, but that primitive profession that employed and recompensed his innocence, and such a gay and privileged plot of his Eden, as seems exempted from the general curse; and, instead of the thorns and thistles that are the unthankful earth's wonted productions, brings him forth lilies and tulips, and gratefully crowns his culture (for toil I cannot think it) with chaplets of flowers.

*Eusebius.* I perceive, Lindamor, that you judge of the delightfulness of this man's calling only by these lovely and fragrant productions of it; and you see these curious flowers in their prime, without seeing by what practices and degrees they have been brought from despicable seeds to this perfection and lustre; and, perhaps, if you considered that a gardener must be digging in the violent heats of the summer, must be afraid of the bitter cold of the winter, must be watchful against surprising frosts in the spring, and must not only prune, and water, and weed his ground, but must, to obtain these gaudy and odoriferous flowers, submit to deal with homely and stinking dung; if, Lindamor, you would take notice of these and some other toils and hardships that attend a gardener's trade, you would, I doubt not, confess, that his employments, like his bushes, bring him thorns as well as roses.

" And now give me leave, Lindamor, to tell you, that this may be applied to the condition of some studious persons that you and I know. For when we hear a learned or eloquent sermon, or read some book of devotion, or, perhaps, some occasional discourse handsomely written, we are apt to envy the

preacher or the writer, for being able to say some things that instruct or please us so much. But, alas! Lindamor, though we see not these productions of the brain till they are finished, and consequently fitted to appear with their full advantages abroad; yet, to bring them to that pass, the author may perhaps undergo many a trouble that we dream not of. For he that has to do with difficult or weighty subjects cannot present us a fine pair of gloves, or a fine collation, which may be had, at an hour's warning, from the next milliner's or confectioner's. For to be able to write one good book on some subjects, a man must have been at the trouble to read a hundred: to grow capable to give a better rendering of a Greek text, he must, perchance, have perused Suidas, Stephanus, and Hesychius, and I know not how many lexicographers and scholiasts: to be qualified to make a translation of a Hebrew word or phrase, that shall illuminate a dark text, or clear a difficulty, or more fitly agree with his notion or accommodation of a place in Scripture, a man must not only, like a school boy, have learned a Hebrew grammar, and turned over Buxtorf's, Schindler's, and other dictionaries; but (which is worse) he must, in many cases, hazard his eyes and patience in conversing with such Jewish writings, not only as Elias's Tishbi and Kimchi's Michlol; but, to gain a little Rabbinical learning, and find out some unobvious signification of a word or phrase, he must devour the tedious and voluminous rhapsodies that make up the Talmud, in which he can learn little but the art of saying nothing in a multitude of words.

Even when a man sets himself to write those smooth compositions, where eloquence is conspicuous and seems chiefly to be designed, the author seldom comes by his contentment on as easy terms as the readers come by theirs: for not to mention that sometimes periods, that in a well printed book look very handsomely and run very evenly, were not in the written copy without interlining and transcriptions; those that are scholars themselves can hardly write any thing without having an ambition, or, at least, a care to approve their discourses to them that are so too. In the judgment of such perusers, to be able to write well, one must not only have skill in the subject, but be well skilled in the way of writing, lest the matter be blemished by the manner of handling it: for though an author's natural parts may make his book abound with wit, yet, without the help of art, he will scarce make it free from faults. To be well stocked with comparisons (which, when skilfully managed, make the most taking passages of fine pieces,) one must sometimes survey and range through the works of nature and art, which are the chief warehouses where variety of similitudes are to be had; and to obtain those pleasing ornaments, there is oftentimes required no less pains than to devise useful notions; as one must search the ditches, amongst briars and weeds, not only to find medicinal herbs, but to gather primroses and violets. So that, Lindamor, to conclude; if we consider the trouble that applauded compositions do oftentimes cost their authors, we should be sensible we owe more than most men think we do, to those to whom we owe

good books. But then, unless they find recompense for their labours in the satisfaction of promoting piety, or in the well-natured pleasure they feel themselves in pleasing others, I should scarce doubt but that some of the writers we think so happy, may rather deserve our esteem than our envy.

### REFLECTION V.

*Upon a glow-worm that he kept included in a crystal phial.*

IF this unhappy worm had been as despicable as the other reptiles that crept up and down the hedge whence I took him, he might, as well as they, have been left there still ; and his own obscurity, as well as that of the night, had preserved him from the confinement he now suffers ; and if (as he sometimes for a pretty while withdraws that luminescent liquor, that is as it were the candle to this dark lantern,) he had continued to forbear the disclosing of it, he might have eluded my search, and escaped his present confinement.

Rare qualities may sometimes be prerogatives without being advantages ; and though a needless ostentation of one's excellences may be more glorious, a modest concealment of them is usually more safe ; and an unseasonable disclosure of flashes of wit may sometimes do a man no other service than to direct his adversaries how they may do him a mischief.

And as, though this worm be lodged in a crystal-

line prison, through which he has the honour to be gazed at by many eyes, and, among them, by some that are said to shine more in the day than this creature does in the night; yet, no doubt, if he could express a sense of the condition he is in, he would bewail it, and think himself unhappy in an excellency which procures him at once captivity and admiration. This oftentimes is the fate of a great wit; the light that ennobles him tempts inquisitive men to keep him (as, upon the like score, we do this glow-worm) from sleeping. This conspicuousness is not more a friend to his fame than an enemy to his quiet; for men allow such persons much praise, but little rest. They attract the eyes of others, but are not suffered to shut their own; and find that they are reduced, for that imaginary good called fame, to pay that real blessing, liberty.

And as, though this luminous creature be himself imprisoned in so close a body as glass, yet the light that ennobles him is not thereby restrained from diffusing itself; so there are certain truths that have in them so much of native light or evidence, that by the personal distresses of the proposer it cannot be hidden or restrained; but, in spite of prisons, it shines freely, and procures the teachers of it admiration, even where it cannot procure them liberty.

## REFLECTION VI.

*Upon my Lady D. R's fine closet, A. D. 1651.*

*Lindamor.* Is not this closet strangely fine, Eusebius ? here is such a variety of pretty and taking objects, that they do as well distract the eye as delight it. The abundance, the choice, and the order, do as well disclose the fair possessor's skill as her magnificence ; and show at once, that she both has plenty, and deserves it, by knowing so well how to make use of it. Those things, that are here solitary or single, will scarce be elsewhere matched ; and all the rest are so pretty and so excellent in their kinds, that the number of fine things that make up this curious collection cannot hinder any of them from being a rarity. In a word, the embellishments, that adorn and ennable this delightful place, are such, that I believe the possessor of them (as welcome as she is unto the best companies,) scarce ever looks upon finer things than she can see in her closet, unless when she looks into her glass. But, methinks, Eusebius, you hear and view all this with a silent seriousness, which begins to make me suspect that what I thought might be an effect of your wonder may be so of your dislike.

*Eusebius.* The collection, Lindamor, is, I confess, very curious in its kind, and such as, if the mistress of it were less handsome than she is, might give her as well cause to be jealous of these fine things, as to be proud of them ; since a beauty,

that were but ordinary, could not divert a spectator's eyes from such objects. But, Lindamor, I must freely tell you, that I like both the lady and the closet much better than the custom such sights as these are introducing among ladies, of furnishing such kind of closets. I know that youth may, in certain cases, excuse some of the impertinences it is wont to occasion; and it is not strange to me, that persons of the fairer sex should like, in all things about them, that handsomeness for which they find themselves to be so much liked: nor would I forbid even such of them as are not of a very high quality to have a retiring place so neatly adorned as may invite them to be alone, and withdraw to it to read or meditate; provided these ornaments be not so costly as to rob charity, or so gaudy as to distract the devotion they should but accommodate. In case circumstances should so conspire, as that youth and quality should be attended by such a plentiful fortune, as that, after all that either justice, prudence, or decency can challenge, there remains yet enough both to relieve the poor and purchase rarities, I will not be so severe as to condemn persons so circumstanced, nor fall out with those that are able to reconcile sumptuousness and charity. But the number of such ladies, especially so soon after a long civil war, must needs be but small, and I fear much inferior to that of those, who will consider more what they see done before their eyes, than the disparity of circumstances betwixt their own condition and that of those they emulate. The greater appearance of ingenuousness, as well as innocence there is in the practice I am disapproving, the more dan-

gerous it is, and the more fit to be examined and decried : for as the old serpent has variety of wiles, so he fits them to the various tempers of the persons he essays to work upon ; and when he meets with ladies virtuously inclined, since he cannot quite eradicate their inclinations to the best part of religion, charity, he will at least blast and render them fruitless ; and he justly thinks he has reached no small part of his end, if, though he cannot seduce them to do ill, he can at least hinder them from doing good. This he has of late attempted but too prosperously, by persuading us to take those for the standards and examples of our expenses, that making none on the score of piety, have the more left for their vanities and their appetites, which they gratify at such high rates, that those who think themselves bound to imitate them in those excesses that are misnamed gallantry, shall have little ability to apply any considerable part of their estates to those uses which chiefly God granted them those estates for. By that time the lady herself, and the house, and the closet, are furnished with all the ornaments that vanity and emulation call for, there is nothing left for charity to dispose of ; nay, perhaps not for justice ; the creditor being oftentimes turned back empty as well as the beggar, if not also made a beggar by ruinous delays. Greater fortunes than most ladies have may be exhausted by gratifying such an ambition as that of a closet ; to whose costliness nothing can put limits, till discretion do.

*Lindamor.* Methinks, Eusebius, you are somewhat forward to accuse those fair creatures, who, though they should want innocence, would scarce

want advocates; and you are too good a casuist not to know, that they are wont to allege that the bravery you are so severe to, is no where expressly prohibited in the Scripture; and this unforbiddenness they think sufficient to evince that the sumptuousness you so condemn is not absolutely, and, in its own nature, sinful.

*Eusebius.* I can readily believe that Lindamor has wit and amorousness enough to make him find it more easy to defend fair ladies than to defend himself against them; and I know it is said that these sumptuous closets and other vanities are not simply unlawful in their own nature: but I know, too, that divers things, not in their own nature unlawful, may be made so by circumstances; and, if so, then I fear that that can be no other than ill that makes a man needlessly disable himself to do good.\* The apostle, who discountenanced women's wearing of gold or precious things upon their bodies, would sure have opposed their having more sumptuous ornaments upon their walls: these cannot pray for us; but the poor and distressed they keep us from relieving may either successfully pray to God for us, or cry to him against us. The Scripture, that represents Dives in hell, without

\* If these reflections were applicable a century and a half ago, what shall we say now, when the progress of wealth and prosperity has converted so many artificial luxuries into the necessities of life? Eusebius would have much more frequent occasion to look grave at the silly importance attached to various costly trifles, even by the middle ranks; and at the preference which it is thought necessary to give to those trifles, over the exercise of charity, in the disposal of money.

saying that he oppressed or defrauded any, gives no other account of his doom, than that living at a high rate, and going richly dressed, he neglected to relieve the starving poor. A few such closets as this lady's might be easily enlarged and contrived into an hospital ; a small part of these superfluities would relieve the necessities of many families ; and a liberal heart might purchase heaven at an easier rate than the furniture of this closet cost the owner of it. Nor is this practice so unallied to a fault as to escape a punishment even in this world ; these courtiers of applause being oftentimes reduced to live in want, even in the midst of a plentiful fortune ; these costly trifles so engrossing all that they can spare, that they must sometimes deny themselves things convenient, and, perhaps, almost necessary, to flaunt it out with those that are neither the one nor the other ; and being frequently fain enough to immolate their own inclinations and desires, though, perchance, strong and innocent, to their vanity. Those who have once found the happiness there is in making others happy, will think their treasure better bestowed in feeding hungry mouths than idle eyes. The costly practice I am censuring, does not only offend charity, but starve it, by subtracting from it that which should feed it, and enable it to act like itself. For my part, I think he that devises, and, by his example, brings credit to a new and expensive way of vanity, does really destroy more poor, than if he usurped an alms-house, or ruined an hospital. By the ill precedent he leaves, he takes the way to be uncharitable, even after death, and so do harm, where misers and usurers themselves are wont (by their

legacies) to do some good. To conclude, it is no very Christian practice to disobey the dictates of piety, without having so much to plead for so doing, as the pretence of following the dictates of custom; and it is a great deal better to be without a gay closet than to be without charity, which loveliest of Christian virtues she must sure very much want, who will needlessly begin a new example to give a bad one.

### REFLECTION VII.

*Upon his seeing a lark stoop to, and caught with day-nets.*

*Eusebius.* Poor bird! thou wert just now so high upon the wing, that the tired gazers feared thou hadst lost thyself in heaven, and, in thy fatal stooping from thence, seemedst to have brought thence a message. Some birds, you know, Lindamor, we usually beguile with chaff, and others are generally drawn in by appropriate baits, and by the mouth, not the eye: but the aspiring lark seems composed of more sprightly and refined materials; she is ever a natural, though no native Persian; and the sun makes not a cloudless visit to our horizon, which that grateful creature gives not a welcome to, both by notes, which, could he hear them, he would think worthy of him, and by a flight as aspiring as if she meant he should hear them: and, in a word, so conspicuous is this creature's fondness of light, that fowlers have devised a way to catch her by it, and pervert it to her ruin; for, placing broken

looking glasses upon a moveable frame, betwixt their nets, the unwary bird, while she is gazing upon that glittering light the glass reflects, and sporting herself in those beams which derive a new glory from their being broken, heedlessly gives into the reach of the surprising nets, which suddenly cover her, and which the light itself kept her from seeing. The devil is like this fowler, Lindamor; and you and I had perhaps resembled the unhappy lark, if sometimes Providence had not both graciously and seasonably interposed, and, even when we were come near enough to have been covered by the nets, rescued us from them: for it has ever been the old serpent's policy and practice to take the exact measure of our inclinations, that he may skilfully suit his temptations to them. If, therefore, the tempter find, by experience, that you are indisposed to be wrought upon by common temptations to forget the practice of religion, and that you have unconcernedness enough not to be much distracted with the empty and trifling chaff youth is wont to be caught with; and that the very gain, and solider goods of this world (for which many, who are thought wise men, lose those of the next,) cannot make you so greedy, nor so fond of them as he desires; if the devil have sufficiently observed how uneasy it were to entice you with common baits, he will alter his method straight, and attempt to catch you with light. He knows, as well as I do, that you have a curiosity, or rather a greediness of knowledge, that is impatient of being confined by any other limits than those of knowledge itself; and, accordingly, he will let you freely sport yourself about the glittering intellectual glass,

men call philosophy, and suffer you not only to gaze upon all its pieces, and survey a pretty number, but, peradventure, pry into more than one; and, among so numerous and delighting objects, I fear, that if you will frankly own what my own guilt makes me suspect you of, you must confess, that he had made you so shave your time, that you should scarce have left yourself any for heavenly themes and the meditation of death, which consequently might have then surprised you (had it invaded you,) if Providence had not mercifully snatched you out from between the nets you were allured to, before you were quite involved in them; and by sickness, or else by means of outward distractions, called your thoughts home by driving them away from those enchanting studies, whose light might much likelier have betrayed you into the net, than have shown it to you.

*Lindamor.* Though I am not surprised to hear Eusebius, yet I am glad to hear a scholar talk at this rate; and believe with you that many a one that was neither crow nor woodcock has perished in this snare: and we have known but too many great scholars, so entirely taken up with writing and reading of books, with learning this and teaching that science; that by setting themselves such tasks as required and employed the whole of man, death has undiscernedly stolen upon them, and unawares intruded into their studies, where their restless ambition to enrich the mind never left them leisure to prepare it to leave the body, but made their condition like that of Archimedes, who was so busy in tracing his circles, that he took no

notice of that victorious enemy who came to despatch him.

*Eusebius.* I allow that it is the innocence as well as pleasure of knowledge, that deceives those learned men; but they, as well as others, must remember, that even the wholesomest meats may be surfeited on; and there is nothing more unhealthy, than to feed very well, and do but little exercise. I take it to be as true of the intellectual as the material world, that “it profits not a man if he gain the whole world and lose his own soul.” Let not, therefore, philosophy any more take up our life so as not to leave us leisure to prepare for death, and study a science which shall most benefit us in another world, and which alone will do so there:—No, we may visit Athens, but we should dwell at Jerusalem; we may take some turns on Parnassus, but should more frequent Mount Calvary; and we must never so busy ourselves about those many things, as to forget that unum necessarium, “that good part which shall not be taken away from us.”

SECTION VI. AND LAST.

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## REFLECTION I.

*Seeing a child picking the plums out of a piece of cake his mother had given him for his breakfast.*

*Eusebius.* THIS child is so much one in his humour, that, despising mere bread, though never so nourishing and wholesome, his mother is fain to disguise the materials of it into cake, out of a belief that the toothsome would make the nutritive part go smoothly down : but this liquorish chit, I see, defeats her plot, and knows already how to nibble off the bait from the hook ; and casting by the meat, make his whole meal of what was meant only for sauce to give a relish to what he rejects for it. This puts me in mind of the fate those papers of mine, that treat of devotion, have met with : for when I first was so unacquainted with the world, as to expect that piety and virtue were able, by their native charms, so much to endear my dress, as to win themselves adorers in a plain or even a severe one ; I ventured some of them abroad in a careless, matron-like habit, in which I soon found they almost frightened most of those I had designed them to work a contrary effect on : but when my acquaintance with the genius of the age had sadly taught me that I was to alter my method, I endeavoured to clothe virtue, though not in a gaudy, yet in a

fashionable habit; and divesting her not only of her sackcloth, but her blacks, when I saw she appeared in them to disadvantage, I endeavoured to give her as much of the modern ornaments of a fine lady as I could, without danger of being accused to have dressed her like a courtezan. This attempt having not proved so unsuccessful but that many were pleased to assure me I had not been unlucky in it, I spent some time in the self-denying exercise of minding words, and improving a style I hoped to be able to subdue to virtue's service, and subduing my inclinations to be fit to teach, as I had done to learn her precepts. I sometimes, for her sake, tried my pen in a smoother and more florid style than that which the nature of the studies I was most addicted to made familiar to me; flattering myself with a belief, that since my writings had usually the good fortune not to be ill approved, I might so happily mingle and interweave instruction with delight, as to necessitate my readers to swallow both together, or, at least, to bribe them by the latter to entertain the former.\*

*Lindamor.* You have better luck as well as better skill, than many others, if you find it not often to fare with the fishers of men, as it did with those other fishers that were first honoured with that glorious title, when they complained to our Saviour that they had "toiled all night and taken nothing:" for I see that men are grown witty enough to elude

\* This is an excellent description of the style in which these Reflections are written, of the causes which produced it, and of the success which had attended similar attempts of the author.

what they cannot despise ; and resemble the deaf adder, that stops her spiritual ears from hearkening to the voice of charmers, be the charmer never so cunning. The best reception that the movingest eloquent that pleads for piety can obtain of them, is but such as may serve to make that applicable to the preacher, which God once said to a prophet, “ Lo ! thou art unto them as a very lovely song of one that hath a pleasant voice, and can play well upon an instrument ; for they hear thy words, but they do them not.\* But the best is, that you serve a Master, who is inclinable to reward, as well as able to discern intention ; and does not make his estimates by events, but judges of our performances, not by the effects they produce, but the affections they flowed from, and the ends they aimed at.

*Eusebius.* “ The disciple is not above his master, nor the servant above his lord :” and, therefore, Lindamor, as I dare not repine at the unsuccessfulness of my endeavours ; so I dare think, that whilst it proceeds but from the obstinacy of others, it is not likely to be imputed to me by him, who complained himself, “ that all the day long he had stretched forth his hands to an unpersuadeable and gainsaying people ;” otherwise, I confess I should not have much cause to be satisfied with the return that all my endeavours have hitherto brought me home : for I see that men can read a book of devotion as unconcernedly as they do a romance or a

\* This description of persons is admirably portrayed in the figure of the Epicurean listening to St. Paul, in the Cartoon of Raffaelle, usually entitled “ St. Paul preaching at Athens.”

play ; in all of them culling out only what they call wit, and making no better use of it than either to exercise or improve their own, they hear the most pathetic sermons, not as Christians, but as orators ; and if in such discourses they have been so just as to praise the rhetoric, they think they may well be excused if they overlook the divinity. In short, nothing but what gratifies their fancy can leave any impressions on their memory ; and that itself, if it tend to reform them, makes none on their affections ; and some, whose happier pens allow them to write far more justly than I can, do complain, that if a devout book have not good store of witty passages, they will not mind it at all ; and if it have, they will mind nothing else.

So that, Lindamor, I should sometimes be dis-  
couraged from prosecuting endeavours, which,  
though they now and then succeed, are oftentimes so  
unprosperous ; if I did not think, with you, that they  
who labour to win souls to God, are set to work by  
him, who having no need of our performances,  
seeks in our services but the opportunities of exer-  
cising his own goodness.

## REFLECTION II.

*Upon the sight of sweetmeats very artificially coun-  
terfeited in wax.*

THE shape and colours of the best sweetmeats of these kinds are here so luckily represented by a skilful hand, that art seems to have designed rather to rival nature, than barely to imitate her ; and a

lover of junkets, that approaches not too near to these, must have much quickness of sight, or but little of appetite, if such inviting objects do not tempt him both to mistake and to desire them. But though, at this distance, these alluring sweet-meats appear very pleasing, yet if one should be so unadvised as to endeavour to eat them, instead of enjoying them more fully by the taste than he did by the sight, he would both spoil and disfigure them ; and, perhaps, be so near choaking himself, that he would more earnestly wish them out of his mouth than ever he wished them in it.

There are some pleasures and conditions too in the world, which make so fine a show at a distance, that in those that gaze at them aloof, they frequently beget envy at them, and wishes for them : and yet he that calmly beholds them takes the best way of enjoying them ; since that which, whilst it is but aimed at, is expected to be very satisfactory, upon a nearer and fuller fruition, would be so far from proving so, and would so little be as sweet to the palate as pleasing to the eye, that it would not only cease to afford them any delight, but would make them wish they had let those deluding sweets alone ; and would make attainments more uneasy and troublesome than ever desire was.

## REFLECTION III.

*Upon a lantern and candle carried by on a windy night.*

As there are few controversies more important, so there are not many that have been more curiously and warmly disputed, than the question, whether a public or private life be preferable. But, perhaps, this may be much of the nature of the other question; whether a married life or a single life ought to be chosen; that being best determinable by the circumstances of particular cases: for though, indefinitely speaking, one of the two may have advantages above the other; yet they are not so great, but special circumstances may make either of them the more eligible to particular persons. They that find themselves furnished with abilities to serve their generation in a public capacity, and virtue great enough to resist the temptations to which such a situation is usually exposed, may not only be allowed to embrace such an employment, but obliged to seek it; but he, whose parts are too mean to qualify him to govern others, and, perhaps, to enable him to govern himself, or manage his own private concerns; or whose graces are so weak, that it is less to his virtues or his ability of resisting, than to his care of shunning the occasions of sin, that he owes his escaping the guilt of it—had better deny himself some opportunities of doing good than expose himself to probable temptations. For there is such

a kind of difference betwixt virtue shaded by a private, and shining forth in a public life, as there is betwixt a candle carried aloft in the open air, and one enclosed in a lantern ; in the former place it gives more light, but in the latter it is in less danger of being blown out.

#### REFLECTION IV.

*Upon the first audience of the Russian extraordinary ambassador, at which he made his emperor's presents.*

I SEE the general expectation, that there will be here this night a magnificent appearance, has produced one. As it often happens in public shows, that the chief part of them is made by those who come to see them ; so here, besides those whose duty obliges them to attend at the solemnity, there is a greater concourse of fine people of either sex, than any thing of this nature has for these many years occasioned. Not only many of the ladies wear in their ribbons little less vivid colours than those of their faces, and are set out with jewels almost as sparkling as their eyes ; (which yet the courtiers think were able to warm the Russian hearts, though all the ice and snow of their country guarded them;) but the men themselves are many of them as finely and as richly dressed as if they came as well to be seen as to see. If the ambassador be (what a man of his employment should be, and what some say he is) a person acquainted with the manners of men, he cannot but know, that we, as other nations, value our own fashions enough to look upon

men disguised by the Russian dress, as little better than antics, if not as some new kind of northern animals. But for all this gazing throng of gaudy spectators, that were able to put an ordinary stranger out of countenance to appear in a habit differing from theirs ; the ambassador, and those that come along with him, think it not fit to decline the Russian habit or ceremonies for the English, but keep to the ceremonies used in Muscovy as strictly as if the monarch of it, that sent them hither, saw them here ; and are not discouraged from this manly proceeding, by seeing themselves stared at for it by a number of gaudy spectators, that wear clothes and use ceremonies so differing from theirs. Whatever those may think of the ambassador, that are wont to estimate men by the fashionableness of their clothes, yet the wiser and more intelligent do not blame him for refusing to disparage the fashions of his own people by appearing ashamed of them ; but do rather think it prudent in him, to prefer the pleasing of his own master and his own countrymen, before the gratifying of strangers : since it is not here, but at home, that he expects the recompense of his behaviour and embassy.

Thus when a Christian, who belongs to a celestial king, and whose "citizenship is in heaven," being but a "stranger upon earth," converses among the "men of the world ;" (though in matters indifferent, there is oftentimes required by prudence as much of compliance as is allowed by innocence,) yet when there happens an occasion wherein he cannot comply with the depraved customs of those among whom he lives, without disobeying him for whom he lives, and whose servant he is—he will

then less consider what may be thought of him by a multitude, than what account he is to render to him who has forbidden men “to follow a multitude to do evil.” As he knows that his reward would be much less than he reckons upon, if it were a thing to be received on earth, not in heaven; so, how strange and unfashionable soever his conformity to the orders of his own sovereign may appear, he chooses rather to displease men than God, and acts as both seeing and being seen by “him that is invisible.”

And this ought to be more easy to him, than their singularity is to the Russians I have been mentioning; for whereas these, if they be knowing and impartial, refuse our modes and rites, not because they are worse, but only because they are other than those of their own country; he refuses to conform to the forbidden fashions of this world, not from their being different from those of the kingdom he belongs to, but from their being bad, and condemned by him that cannot err. And whereas these Muscovites are morally certain that we shall never prefer their fashions to our own; the Christian has as great an assurance, that those whose practice he dissents from, will one day repent that theirs dissented from his, and will wish they had imitated what they now seem to scorn. When he shall come to the celestial city he belongs to, he will be in no danger to be derided for the sake of piety, since those who deride piety will not be admitted there: and as these Russians could not take a better way than that of not sneaking to avoid the having their rites and persons undervalued; so, for a Christian not to blush at his unfashionable practices, seems the hopefulest way to keep them

and him from being scorned, especially with those, who, having themselves no quality better than confidence, value it most in others. Sure it were a very unlikely way to keep others from despising the customs of the heavenly Jerusalem, for him who belongs to it to appear ashamed of them himself. Nor have pious persons cause to be out of countenance at the singularity even of a strictly virtuous deportment, since being (as the Scripture tells us such men in general are) "fellow citizens with the saints," they cannot justly be blamed if they aspire to be as like as they can here to those whom they desire and hope to be perfectly like hereafter. If the angels (as the Scripture in several places seems to intimate) are witnesses of our actions, the smallest number of unfashionable good men, may, upon that score, say to one another: "Fear not; for they that be with us are more than they that be with them." (2 Kings, vi. 16.) The day will come when those that despise their singularity will envy their happiness; one welcoming smile from Christ will make them amends for all the scornful smiles of sinful men; and the sentence of absolution and bliss, solemnly pronounced before God, angels, and men, will not only recompense them for the world's disesteem, but show that they did not deserve it.

## REFLECTION V.

*Upon the sight of roses and tulips growing near each other.*

IT is so uncommon a thing to see tulips last till roses come to be blown, that the seeing them in this garden grow together, as it deserves my notice, so, methinks, it should suggest to me some reflection or other on it. Perhaps it may not be an improper one, to compare the difference betwixt these two kinds of flowers to the disparity which I have often observed betwixt the faces of those young ladies that are only very handsome, and those that have a less degree of beauty, recompensed by the accession of wit, discretion, and virtue : for tulips, whilst they are fresh, do, indeed, by the lustre and vividness of their colours, more delight the eye than roses ; but then they do not only quickly fade, but as soon as they have lost that freshness and gaudiness that solely endeared them, they degenerate into things, not only undesirable, but distasteful : whereas roses, besides the moderate beauty they disclose to the eye, do not only keep their colour longer than tulips ; but when that decays, retain a perfumed odour, and divers useful qualities and virtues, that survive the spring, and recommend them all the year. Thus those unadvised young ladies, that, because nature has given them beauty enough, despise all other qualities, and even that regular diet which is ordinarily requisite to make beauty itself lasting, not only are wont to decay betimes, but as soon as

they have lost that youthful freshness, that alone endeared them, quickly pass from being objects of wonder and love, to be so of pity, if not of scorn : whereas those that were as solicitous to enrich their minds as to adorn their faces, may not only, with a mediocrity of beauty, be very desirable whilst it lasts ; but, notwithstanding the recess of that and youth, may, by the fragrancy of their reputation, and those virtues and ornaments of the mind that time does but improve, be always sufficiently endeared to those who have merit to discern and value such excellences, and whose esteem and friendship is alone worth being concerned for. In a word, they prove the happiest, as well as the wisest ladies, that, whilst they possess the desirable qualities that youth is wont to give, neglect not the acquisition of those that age cannot take away.

#### REFLECTION VI.

*Upon the sight of a branch of coral among a great prince's collection of curiosities.*

THE present and future condition of a Christian, especially of a martyr, is not ill represented by what we take notice of in coral ; for whilst that shrub yet lives, and remains fastened to its native earth or soil, it grows in an obscure region of the world, and is perpetually surrounded and overflowed by the brackish and unpleasant waters of the sea, and oftentimes exposed to the irregular agitations of its waves. Besides, the substance of this plant (as those that should know inform us) is but soft and

tender under water, and its colour but sad and un-lively ; nor is it, like the tulip or the rose-bush, adorned with any pleasant verdure, and much less does it flourish with gaudy colours. Whilst it remains under water, the excellency of it does so little disclose itself, that men sail over it, without suspecting or dreaming they have any thing precious under their feet ; and by the fishes, in whose element it grows, it is passed by wholly unregarded. But when this unheeded coral comes to be torn off from its root, and plucked out of its soil, and so is killed in the capacity of a plant, it then exchanges the dark and unquiet place it was confined to, for a more elevated and lightsome region ; and instead of sharing the fate of common shrubs and flowers, first to degenerate into fading colours and offensive smells, and then to perish either by rottenness or fire ; our coral, by the violence offered to it, acquires a delightful redness, together with a solidity and a durableness, that makes it a thing so lovely and immortal, that it serves for an ornament for the cabinets of the curious ; and what stupid fishes do not at all regard, those nobler creatures men do so highly prize, that oftentimes it finds place even among the rarities of princes.

Thus a true Christian, whilst he is yet confined to the region of the animal life, lives oftentimes in an obscure and low condition, and far from that prosperous state wherein the world's favourites are wont to flourish ; he is almost perpetually exposed to pressures and affliction ; and either most men consider him not at all, or those that look at his outside only, are apt to despise him because he is so homely : and he is not only in such seemingly

forlorn condition as made the Psalmist complain of himself, that “ all the waves of the sea passed over him,” but (like those plants of coral, that, not growing so near the shore, are constantly covered with water, as well as sometimes disordered by storms,) the calamities that do, as it were, overwhelm him, are never altogether removed, even in the intervals of those tempestuous fits which increase his distresses. But when the violence of sickness or the fury of a persecutor shall have taken away his life, he must be then translated into a higher and happier region, where afflictions and distresses will be all left behind ; and when the sensual idolizers of their bodies shall be condemned to have those as loathsome as were their minds, and as restless as their guilty consciences—his body will obtain new and glorious qualities like that of his Redeemer, and his soul shall find no less happy a transfiguration : “ The mortal part will be swallowed up in life ; that perfection, which is but in part, shall be done away.” These newly-acquired excellencies of the whole man will never after vanish or decay ; and he that lived unregarded by the stupid inhabitants of the earth, shall be joyfully welcomed into the blessed society of celestial spirits ; and, what is infinitely more, be graciously welcomed and dignified by the Son of God himself. Men should not, therefore, by a Christian’s present state, take their measures of his future state ; but rather should remember that he who said of such, “ They shall be mine in the day when I make up my special treasures,” is one, whose estimate of persons and conditions we may safely rely upon, since he is able to make any of them such as he pleases to pro-

nounce them : consequently, we may look upon the constant Christian's differing condition, with his eyes, who said, " We are now the sons of God, and it does not, indeed, yet appear what we shall be ; but we know that when he shall appear we shall be like him," who would be like himself alone, did not his goodness vouchsafe to exalt those that love him to a likeness, which makes them very unlike the most glorious things we here admire, by incomparably transcending them.

### REFLECTION VII.

#### *Upon the sight of the effects of a burning-glass.*

IT is a fault incident to many good men, to be too much indisposed to entertain the precepts of virtue, as such excellent things deserve, in case those that teach them do not practise them. There are too many that do not think themselves obliged to take even the wholesomest advice from those whom they see more careful to give it others than to follow it themselves ; and some of them are so nice, that they will scarce read a book of devotion, unless it come (like that St. John eat in the Apocalypse) from the hand of an angel. But for my part, though I hope I both value and desire religious preachers as much as the rest of my brethren, yet I think it would be much to the injury of Scripture and of reason, if we should suffer the personal faults of men to keep them from doing that good their nature fits them for. The etymology of the Gospel importing its being welcome news, it is pity that

any one that teaches it should not have a title to the character David gave Ahimaaz, of whom he said, that “ he is a good man, and brings good tidings.” But my desirousness of piety in a preacher is more for others’ sake than mine : for I know not why truth, which is an intellectual thing, should lose its nature by any moral viciousness in the proposer. I know there is something extraordinary in the case of Noah, who awoke from his wine, and immediately prophesied ; and yet the event verified his predictions. Our Saviour, instructing his disciples about the scribes and Pharisees who sat in Moses’s chair, at the same time commands them to conform to their doctrine, when he forbids them to imitate their example. The wise men did not the less find Christ at Bethlehem, though the priests and Pharisees sent them without accompanying them thither : and the Assyrian general was cured of his leprosy by following the prophet’s prescription, conveyed him by that Gehazi, who, by his unworthy carriage in that business, transplanted (if I may so speak) that foul disease into himself and his posterity. I will, therefore, consider sermons more than preachers ; for as in a burning-glass, though the sun-beams do but illustrate, not heat, in their passage ; they may yet, by its assistance, kindle subjects that are more disposed to receive their action—so those very truths and notions of a learned preacher, which do but enlighten him, may inflame his hearers, and kindle in their hearts the love of God. And as if a perfume be set on fire by the beams projected through a burning-glass, (which they do not so much as warm in their passage,) the scent is no less odoriferous and grateful than

if it had been produced by an actually burning coal; so neither is that devotion, which is kindled by the eloquence of an indevout preacher, any whit the less acceptable to God for their not being themselves affected with the zeal they beget in others: and what the book of Kings relates of Elisha's bones, contains a far greater miracle in the historical than in the allegorical sense, in which it is no such wonder to see a man raised to life by a dead prophet.

### REFLECTION VIII.

#### *Upon the finding a horse-shoe in the high-way.*

THE common people of this country have a tradition, that it is a lucky thing to find a horse-shoe: and though it was to make myself merry with this fond conceit of the superstitions vulgar, I stooped to take this up, yet I now observe in it a circumstance that may, for aught I know, somewhat justify the tradition: for I take notice, that though horse-shoes are by travelling worn out, yet if they had a sense of their own condition, it might afford them some consolation in it, that the same journeys that waste them, make them both useful and bright: whereas, though the horse-shoe I have taken up has not been consumed upon the account of travelling, it has been eaten up by rust, which wastes it as much as attrition would have done, but does not give it the lustre it would have received from that. I meet with many, who, very

unmindful that he who was justly styled the wise man, gave counsel that “whatever our hand finds to do, we should do it with all our might,” &c.—make it the main business of their life merely to lengthen it; they are far more solicitous to live long than well; and would not undergo the least labour, or endure the least hardship to do the greatest good; but had rather lose an hundred opportunities of serving God or obliging men, than one entertainment, or an hour’s sleep; and all this under pretence of minding their health, and complying with the dictates of self-preservation. But I have often observed too, that even these jolly people, that seldom have a serious thought but how to avoid serious employments, may, by making their whole lives a succession of diversions, or rather a constant diversion from the true end of them, make their lives indeed thereby useless, but not at all immortal. Truly, fevers, pleurisies, and other acute diseases that are home-bred, besides those numerous fatal ones that are caught by contagion and a multitude of casualties, do cut off so many before they reach old age, in comparison of those that the diligence and industry imposed by religion or curiosity destroy; that, I think, so great a fear of using the body for the interests of the soul and of him to whom we owe both, does very little become the disciples of him who said, that it was “his meat to do the will of God that sent him, and to accomplish his work.” The trouble of thirsting, and sweating, and undressing, would, to an ingenuous man, be but just recompensed by the bare pleasures of eating, drinking, and sleeping; and to

confine an honest and inquisitive person from those which he looks upon as the almost only manly employments, the exercise of virtue, and the pursuit of knowledge, by telling him that such a forbearance may protract his life, is to promise a thing upon a condition that destroys the end and use of it : he will look upon it as if you should offer him a horse provided he will not ride him, or a perspective glass, upon condition he shall not draw it out, for fear the air should, as it sometimes does, impair the glasses. A heaven-born soul would scarce think it worth while to stay here below, if its work must be, not to employ the body, but to tend it. Those that are so unreasonably afraid to spend their spirits, are, in some degree, less excusable than misers themselves ; for though both hoard up things that cannot be better enjoyed than by being parted with, (the chief use for which they were intrusted with them) yet in this, those I blame are more censurable than the covetous themselves ; since these, by their niggardliness, can avoid spending their money ; but the other, by their laziness, cannot avoid the consumption of their time. I know a man may be prodigal of himself, as well as of his estate, and that both those profusions are faults, and fit to be declined ; but if I could not shun both the extremes ; certainly, since we must all die, and the question is not whether or no we will live for ever, but whether we will endeavour to lead a life mean and unprofitable a few more days, or a glorious life for a somewhat less number of them—I should rather choose to spend my life quickly than uselessly. He that lays out himself for eternity, if he lose any

portion of his time upon that account, is the sooner put into possession of an inexhaustible stock of it; whereas those who, that they may live long, meanly forego the ends of living, and seek, by laziness, to protract an insignificant stay on earth, would, (should they reach their aim,) add rather to their years than to their life.

### REFLECTION IX.

*Upon the shop of an ugly painter rarely well stored  
with pictures of very handsome ladies.*

*Genorio.* Here is a deceitful shop of beauty, where many, that come but to wonder, meet with love; and even when they buy not what they like, pay their hearts for it; the shop being so well furnished, that beauty seems here to have assumed all the variety of features and complexions she can be dressed in, and so exquisitely to have fitted all gazers with proportionate and attractive objects, that nothing but an absolute incapability of love is here able to protect them from that passion, which, not to resent among so many inspiring wonders, were one. If, in these faces, the originals equal the transcripts; if art have not flattered nature, and attempted more to instruct than imitate her; and if the painter have not elected, rather to have his pieces liked, than like—here are apologies for love, that can procure it, not only pardons, but proselytes. I must, in that case, add, that there are more suns than one, whose brightness, even by reflection, can

dazzle ; here are princesses more illustrious for the blood that lightens in their cheeks, than for that which runs in their veins ; and who, like victorious monarchs, can conquer at a distance, and captivate by proxy.

*Eusebius.* I fear, Genorio, that you are so transported with your text, that you will quite forget (if ever you intended it) to make a homily upon it : for you talk at such a rate, as if you were about to lose, to the pictures of ladies, the liberty your friend Mr. Boyle would be thought to have ever defended against their originals ; and fancied, that it might add to the other resemblances you so admire betwixt them, if both of them were made enemies to seriousness.

*Lindamor.* I presume, Genorio will willingly allow me to serve him at this turn : for whether or no he meant us a reflection, some charms or other he has met with in these pictures, seem to have so arrested his thoughts as well as his looks, that we shall not have them hastily delivered from so pleasing a captivity ; and the knowledge I alone, of us three, have of the drawer of these pietures, supplies me with a circumstance, without which, I should not, when Eusebius is by, offer an occasional meditation. But upon this advantage, I shall venture to tell you, that the thing I was considering, was, that though the limner have drawn some pieces as handsome as lovers think or wish their mistresses, and some (as they tell me) so like, than an actual confrontation of the artist's works and nature's would scarce distinguish them, (since the former would appear to differ from the latter, but in that silence, which the latter's admiration to see

themselves so perfectly represented, would impose) yet is the painter himself so deformed a creature, that he might draw a lovelier face, even than any here, by drawing one perfectly unlike his own. Alas! this discloses the difference there may be betwixt the being able to write fine characters of virtue, and the possessing of it. How ridiculous should I esteem this limner, if, with all his ugliness, he should esteem himself handsome, because his pencil can draw faces that are so! As absurd were it for us to grow proud of our devout composure, and fancy piety ours, because our discourses can possibly enamour others of it. The devil sometimes does unmolestedly suffer us to write well, if he can but persuade us we need do no more, and that good pens may dispense us from good actions. Our paper wars against vices are oftentimes like Alexander's against the neighbouring nations, not out of hatred, but glory; not to extirpate, but to conquer them; and manifest to the world the sufficiency of our parts, by a victory, after which we often treat the vanquished enemy with greater courtesy than those whose quarrel we undertook. Discourses against vices may be as well indicted by vanity as by zeal, and meant to express wit, not persuade piety: and if (as it chanced but too frequently) we grow proud of them, we do, like witches turning exorcists, only comply with Satan to cast out the devil.

*Eusebius.* To second your pious reflection, Lindamor, with some thoughts suitable to my profession, I will add, that, in the case you put, it happens to us as it once did to Gideon, who, of the spoils of God and Israel's conquered enemies, made an idol,

which proved, in the end, his and his house's snare. It was a most instructive check and divine admonition that our Saviour gave his apostles, when, in the account they brought him of their embassy, they joyfully related their exercised power of dispossessing devils; "Notwithstanding," answered Christ, "in this rejoice not, that spirits are subject to you; but rather rejoice that your names are written in heaven." In effect, though Judas was one of the persons invested with this miraculous power of casting devils out of others, yet we read, that Satan afterwards entered into Judas, "and that it had been good for him that he had never been born :" and though, as Solomon tells us, "he that winneth souls is wise," yet it is he only that shall do, as well as teach the commandments, "that shall be called great in the kingdom of heaven :" and the Judge himself informing us, that, at the world's last day, many will plead their "having, in his name, not only prophesied or preached, but cast out devils," and shall yet be disclaimed by him—sufficiently intimates, that it is as possible as unavailable, "to do many wonderful works" for religion, and to be "workers of iniquity." The true Christian should, Lindamor, be willing to impart any useful discoveries that God shall please to vouchsafe him; but he will ever consider the takingest notions he can frame of virtue, more as engagements to it than arguments of it; and since there is not any thing, in which charity ought more to begin at home, than in devout instructions; he will endeavour to make himself as much piety's votary, as advocate; to imitate those truly wise men, who, as they informed those of Je-

rusalem of the star they had seen in the east, did themselves follow it, till it brought them unto Christ; to entitle himself to that of our Saviour, "a good man, out of the good treasure of his heart, brings forth good things;" and, finally, to take his celebrations of virtue from his experience, not his fancy; (as nurses first feed themselves to nourish their sucking infants, to whom they give no meat, which they have not in their own breast first digested into milk) lest (like the carpenters that toiled to build the ark to save Noah from the deluge themselves perished in) "when he had preached to others, he himself should prove a cast-away."

*A continuation of the discourse.*

*Genorio.* SURE, gentlemen, it is a happy thing to be able to convert the meanest things to the noblest uses, and make whatever one pleases subservient to piety, by skilfully employing even slight and unpromising occasions, to represent her with the advantages of a varied and surprising dress, whereby you may procure that virtue lovers, and yourselves friends; for her votaries are so ingenuous and disinterested in their amours, that they have as well a kindness for their rivals as their mistress.

*Lindamor.* I will not deny, but that there may be persons so inflamed with heavenly love, that their devotion is able, like the last fire that is to refine or destroy the world, to turn all things into fuel for its victorious flames; and who, when they are once engaged in meditation, can make their

pious thoughts excite themselves and flame up higher and higher, without the assistance of other incentives than what their own fervency procures them ; as it is observed, that when the fire has seized upon a town, by how small a spark soever it has been kindled, if the flame come to be great, though the air be very calm, the fire itself will produce a wind, that, without the help of bellows, shall strongly blow it, and make it blaze the more, and aspire towards heaven. But, Genorio, whenever (for I answer but for myself) I shall meet with any such happy contemplators, I shall have the justice to be one of their admirers, without having the vanity to pretend to be one of their number.

*Eusebius.* And I, for my part, shall tell you, Genorio, that though there may be divers charitable persons, besides yourself, that, by the expressions it becomes me to use in some of my meditations, and other composes of the like nature, may be apt to fancy that I am myself as devout as I endeavour to make my readers ; yet you must not imagine that my mind, like one of those writings, has no other thoughts than religious, or at least moral ones ; for those may be the productions, not of a constant frame of mind, but of occasional fits of devotion ; and you may read a greater number of such reflections in an hour, than, perhaps, I have made in a month, not to say in a year : and I must ingenuously confess to you, that I think it more easy to make ten good sermons than to practise one, and to declaim against all sins than to relinquish any : there goes much less self-denial to conform to the precepts of Cicero, than to those of Christ ; and I find it so much less difficult to excite other men's

passions than to command my own, that if you will not suffer your charity too much to injure your judgment, you must look upon the devout passages you may have met with among my composures, as expressions of what I aim at, rather than of what I practise.

AN  
OCCASIONAL REFLECTION  
UPON A  
LETTER

Received in April, 1662;

*Containing an account of what passed on the king's coronation-day, in a little country town.*

I NEED not, Pyrocles, after what we have been reading, tell you, that the writer of this letter thinks, that both in what he has said of the king, and in what he has done to solemnize his coronation, he has behaved himself rarely well : for I doubt not, but you easily discern, by his way of writing, that he is highly satisfied with his performances, and expects that he shall, if not be thanked by the king, at least, be mentioned in the news book. But it will, I fear, be requisite to tell you, that this honest man is not alone of his mind ; for being his landlord's bailiff, he is esteemed at that rate by his neighbours, and looked upon as a man very consi-

derable in his parish ; and is, perhaps, thought to have a right to pity most of those that do not admire what he has now been doing : and yet, you and I, who pretend not to be courtiers, can, in his rural encomiums, and in his ill-contrived way of honouring his prince, easily discover so much that might have been mended, and so much that might be laughed at ; that if the king, according to his wonted graciousness, vouchsafe this action his smiles, it must not be in consideration of the suitableness of the performances to the occasion, but, partly, as they proceed from a hearty, though ill-expressed, loyalty and love ; and, partly, as they afford him a subject of merriment. And not only the nice critics, who have seen those magnificent solemnities, and heard the eloquent panegyrics, wherewith the principal cities and assemblies in the nation have thought they did but part of what they should ; and not only those assiduous courtiers, who, by the honour of a nearer access, have opportunities (denied to others) of discovering those particularities that may best give a high veneration for a great person and a great prince to those that are qualified to discern and relish such things—not only these, I say, will have a quite other opinion of the rural praises and antique ceremonies, that were so well liked a hundred miles from London ; but this countryman himself, if he were admitted to the court, and bred awhile there, would, in time, see so great a distance betwixt what he has done and what a person better bred might have done, that he could not remember without blushes what he now looks upon with triumph.

And now I must, on this occasion, confess to you, Pyrocles, that I have, on other accounts, several times been revolving in my thoughts, what the angels think of those praises and descriptions of God that men devise, (for I intend not here to speak of those the Scripture suggests) and wherein we are most applauded by others, and do oftentimes, perchance, applaud ourselves : for those celestial courtiers (if I may so call them) have several advantages to assist them in the celebration of our common Master, which we poor mortals want. For first, they are free from those selfish and inordinate affections, that too often hinder us, either from discerning the excellency of divers of God's attributes and ways, or from duly acknowledging it : they have no sins to keep them from descrying the justness of what he does ; they have no ingratitude to oppose the fuller resentments of his goodness ; and they are not tempted not to discern and adore his wisdom, for fear they should appear culpable for repining at his dispensations. And, indeed, their longevity allowing them the full prospect, from end to end, of those intricate transactions of Providence, of which short-lived mortals do commonly see but a part ; they are questionless far more satisfied with the incomparably better contrivances they discern in the management of human affairs, than we are with the conduct or plots of the most skilfully written plays and romances. Besides, those happy spirits, of whom the Scripture tells us, that "they stand before God," and that they "continually see his face ;" have, by that privilege, the blessed opportunities of discovering in the Deity they contemplate and serve, many excellences, which even

they could never, but by experience, have formed any thoughts of ; and they see in one another's solemn adorations and praises, a way of honouring the object of them, so much transcending the utmost of what we here aim at, that their homages to their Creator may well be supposed of a far nobler kind than ours. And, lastly, when I consider how much less unworthy thoughts and expressions touching things divine, the same person may have, when come to his full maturity of age and parts, and whilst he was but a child in both ; and when I consider how much more advantageous conceptions of the wisdom displayed in the universe, and particularly in the contrivance of a human body, one, that is a true philosopher and a skilful anatomist, may have, in comparison of a man, illiterate and unacquainted with dissections—when, I say, I consider these things, and compare the dim twilight of human intellects in this life, with that clear and radiant light, which the Scripture ascribes to angels ; I cannot but think, that, having to the privilege of a much nearer access than is allowed us to contemplate God's perfections, the advantage of having incomparably more illuminated intellects to apprehend them with, they must frame different conceptions of the divine attributes, and glorify the possessor at a different rate, than is allowed to those, whose understandings are so dim, and whose residence is so remote from that blessed place, where the perfections they would extol are most displayed.

Assisted by these and the like advantages, Pyrocles, those happy spirits may well frame notions, and employ expressions in honour of their Maker,

so far transcending ours, that, though the angels' goodness keeps them, doubtless, from beholding them with contempt; yet, we may well think, they look upon them with such a kind of pity, as that wherewith great wits and courtiers look upon the mistakes and imperfections of what they did and writ when they were but school-boys; and as that wherewith, when we shall be admitted to the society of the angels, we shall look back upon our former selves. No, Pyrocles, to praise God is a debt, which, though we should ever be paying, we must always owe; not only because the renewed obligations will last as long as we, but because, though the entire sum were possibly to be paid, we have no coin of the value that would be requisite to make a payment of that nature. It is true, indeed, that some men say much more than others upon a subject on which none can say enough, and which "even the spirits of just men made perfect" can but imperfectly celebrate. It may be, too, that the praises we pay to God procure us some from men, and, perhaps, even from orators and encomiasts; and though I hope no man can so far flatter himself, as to think he can flatter what he can never do right to; yet the zealousness of our endeavours, and the applause that others entertain them with, may, perhaps, tempt us to think, that because in our expressions we have surpassed ourselves, we have almost equalled our theme; as if to make our praises too great for any other subject were sufficient to make them great enough for God. But, alas, how widely must we be mistaken! since our expressions, if we speak sense, can at best but fully represent our conceptions; and those

BOYLE'S REFLECTIONS.

ing but the notions of a finite creature, must needs fall extremely short of perfections, which were not what they are if they were not infinite. No, when we have employed the loftiest hyperboles, and exhausted all the celebrating topics and figures of rhetoric; when we have dressed metaphysical abstractions in poetic raptures; when we have ransacked whatever things are most excellent among the creatures; and having defecated them, and piled them up together, have made that heap but a rise to take our soaring flight from; when we have summed up, and left beneath our expressions, all that we are here wont to acknowledge above them; nay, when instructed, as well as inflamed, and transported by that "inaccessible light," that is inhabited by what we adore, we seem raised and elevated above all that is mortal, and above ourselves, and say things that nothing else could either inspire or merit:—even then, I say, those expressions which, any otherwise applied, would be hyperboles, do but express our devotion, not the divine object of it; and declare how much we honour him, rather than what he is: and, indeed, none but the possessor of an infinite intellect can be able to say what the possessor of other infinite perfections deserves to have said of him. And whatever zealous skill we praise God with, we do far less honour him than injure him, if we think our aspiringest praises can arrive so far, as, I say, not to reach, but so much as to approach their subject.

But let not this inevitable impotence, Pyrocles, trouble or discourage us. Those blessed souls that "follow the Lamb whithersoever he goes," do (as

we are taught in the Apocalypse) make it their business, and find it their happiness, to spend a great part of their eternity in extolling him, by whom they are placed in a condition, where they can have no employment but what is holy and noble: and even here below, the praising of God is a work, wherein we imitate, though we do not equal the angels; and are busied in the same employment, though not with the same skill. Nay, heaven itself exempts not its residents from an impotence, which belongs to creatures, not as they are imperfect ones, but as they are creatures: even the members of the church triumphant do not triumph over this necessary impotence: their praises may need pardon, even in a place where they can sin no more; and they can expect but from God's goodness the acceptance of those praises, that are improved, as well as occasioned, even by their being made partakers of his glory. Nay, in the prophet Isaiah's ecstatic vision, the Seraphim themselves, that are introduced as answering one another's glad acclamations to God, are likewise represented as "covering," out of respect, "their faces with their wings." But, Pyrocles, as I was saying, this unavoidable disability to say things worthy of God need not at all trouble us; since we pay our homages to one, whose goodness our expressions can as little equal as they can his other attributes. He that created us will not impute it to us that we act but as creatures; and since he has declared, that "where there is a willing mind, a man is accepted according to what he has, and not according to what he has not,"—the impotence, I have been speaking of, ought to bring

us rather joy than trouble ; since the infinite distance betwixt us, without lessening his favourable acceptance of our praises, supposes the boundless perfections of him, whom those praises (through his goodness) help to give us an interest in ; and no son would repine at his royal father's greatness, how immense soever ; being sure that greatness would not lessen his kindness : for it is less desirable to be able to describe the power and excellencies of him we have an interest in, than to have an interest in one, whose power and goodness exceeds whatever we can say or fancy of them.

To conclude, Pyrocles ; since, on the one side, God is most truly said in the Scripture to be so “ glorious, that he is exalted above all blessing and praise ;” and, consequently, though “ I could,” to use St. Paul’s phrase, “ speak with the tongues of men and angels,” yet the highest things I could say of the divine perfections must needs be, therefore, far below them, because a creature were able to say them ; and, since, on the other side, it is of us men that God vouchsafes to say, “ whoso offereth praise glorifieth me ;” and his transcendent excellency is so far from being inconsistent with a resembling graciousness, that such a benignity is one of the most conspicuous parts of it—I will not forbear to pay my praises unto one, whose deserving infinitely more than I can offer keeps him not from accepting as much less than he deserves : but then I must not presume to “ fill my mouth with his praises,” without sensibly acknowledging, that there is not any subject whereon my expressions can more want eloquence than on this subject : even eloquence itself would want expressions.

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